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INDIA RUBBER WORLD

Edited by HENRY C. PEARSON—Offices, No. 150 Nassau Street, NEW YORK.

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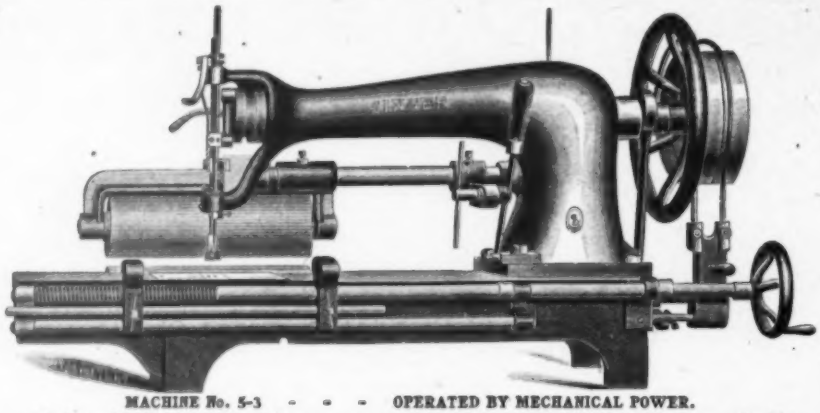

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CAOUTCHOUC. GUTTA-PERCHA.

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I believe that CHARLES GOODYEAR is to go down to posterity in the history of the arts of this country, in that great class of inventors, at the head of which stands ROBERT FULTON, in which class stand the names of WHITNEY and of MORSE, and in which class will stand the humble name of CHARLES GOODYEAR.

Speech of the Hon. DANIEL WEBSTER in the Great India-Rubber Suit, 1852.

THE GOODYEAR SPIRIT.

IT is worth noting that the number of men who claim that there is no such thing as friendship in business appears to be growing beautifully less. Indeed, the spirit of consolidation and coöperation, as shown to-day in the industrial world, is proof that there is and that there must ever be a great deal of the sentiment known as business friendship.

It is particularly appropriate that the rubber trade should have a great measure of this most excellent and necessary spirit. The trade having been founded by one whose best thought was given to the trade without the slightest selfish consideration or reservation, rubber manufacturers have before them always an example of broad minded generosity that should tend constantly toward higher ideals and to broader and more generous accomplishment. It is but just to the rubber manufacturers to mention that within the last few years there has been a revolution in feeling among them. There are several associations, business and social, through the medium of which competitors meet and adjust their difficulties in a spirit of amity if not of brotherly love. Certainly business competition which has an intelligent regard for the rights of others, and often even a modicum of generosity toward the keen competitor, should be the order of the day in any trade.

The mission of a trade journal is not to sermonize or to moralize. It is not to give advice, not to try to run the business of any establishment but its own. It is sufficient, therefore, to say that in the life of Charles Goodyear, and particularly in his heroic work for his trade and for humanity, there lives a sermon that no intelligent man can afford to disregard, and which, if lived up to, will work infinite betterment to the rubber business and to the world.

THE ELECTION AND ITS RESULTS.

WHILE ordinary political discussion is foreign to the scope of our editorial columns, we deem it proper to congratulate the trade which THE INDIA RUBBER WORLD represents, and the American business community at large, upon the indications that the result of the recent presidential election presages a continuation of the generally prosperous condition of the country. Without analyzing the policies which have been rejected, it may be said that it is not well to disturb trade conditions with a change of political administration unless a marked im-

provement is assured, and it is plain that the men who have in their hands the control of the business interests of the country failed to see, during the late campaign, any adequate reason for turning over a new leaf.

Without doubt the question of maintaining undisturbed the existing monetary standard figured largely in influencing the minds of the voters. Always and under all circumstances, a matter of profound importance, it is even more important that the measure of values in the United States should be preserved from even the possibility of danger of deterioration at a time when this nation is assuming a new and enlarged importance in international trade. Bimetallism in the sense in which some theorists define it never has existed, for while two money metals may have occupied the same position under the laws, as a matter of fact either one or the other invariably has served as the actual measure of values, and the inevitable shifting of the relative worth of the metals has ever resulted in unsettling credit, and in making profits less certain. The first result of the election, therefore, is the practical certainty that one question, disturbing to business, has been removed from American politics, and that another step has been taken toward a universal money standard.

All the talk about "trusts" in the campaign failed to define any tangible policy by any party, or even to make plain how the election of any candidate, on any platform, could put an end to the tendency in the industrial world of combination, when combination appears to be a means toward increased production and consumption, and the reduction of producing and selling costs. There was a time when the agricultural elements of the great west were as strongly aroused against the combination of short lines of railways into great trunk lines, as they have been more recently against industrial combination, but the anti-railroad feeling has well nigh died out, and it is doubtful whether the future student of political economy can find any difference in principle, between building up a railway system with short lines of road, and the building up of a great manufacturing business by combining smaller enterprises. At any rate, nothing in the history of the great combinations thus far indicates that it is not still possible for small new competing factories to be started and run successfully by men with the capital and the brains necessary to manage them. The "trust" question can hardly be said to be dead, however, because nobody as yet seems to know what it is.

The question of the control of our new foreign dependencies, which attracted much attention during the campaign, also lacked definiteness. We have had these new responsibilities thrust upon us too recently for any final governmental policy to have been set on foot, and the proper course to be followed remains to be demonstrated by experience. But one needs only to take a glance at the recent growth of our trans-Pacific trade, and the interest of the western United States in a prospective ocean commerce which shall compare with that which has made the Atlantic seaboard states so populous and wealthy, to see that a strong protest would go up against the complete abandonment at Washington of the footing which this nation has, by accident, almost, gained at the doorway of Asiatic trade. As in the case of the "trusts," it may be said that no definite "anti-imperialistic" policy was rejected at the polls in November, because none was presented.

The whole situation may be summed up, therefore, by saying that the election leaves things as they were, and if business continues as good for another four years as it has been for some time past, there will be little ground for complaint.

THE GOODYEAR DINNER of the New England Rubber Club attracted a degree of interest in the trade which has not been equalled by any other event in years. The occasion was at once dignified, interesting, and in every way satisfactory. The planning of the dinner and the attendant proceedings must have involved an immense amount of thought and work, but as the varied duties were delegated to individual members of the committees, who in turn simply reported when their work was successfully accomplished, the whole of the arrangements were without friction and were free from red tape. The executive committee of the Club certainly can congratulate themselves on the outcome of their work. To seize an occasion like the centenary of the birth of one who made the rubber trade possible, and who was in every way worthy of the respect of all of his successors, and to gather the notables in that trade to listen to the words of those who had studied the varied phases of his life and work, was a happy inspiration, and the congratulations and appreciation of those present have been most grateful, not only to individual members of the Club, but to the committees who had the occasion in hand.

THE FACT THAT RUBBER FOOTWEAR is universally used in the snowbelt in the United States does not prevent the employment by the manufacturers of such articles of the best selling talent that money can buy. Every year more factories are at work and greater efforts are made to induce people to buy what it might be supposed they would buy without being asked. Hitherto, however, the fact has largely been overlooked by these same manufacturers that there are other countries where rubber shoes are needed as much or more than in the United States; if the people of those countries have wanted rubbers, they have had to look out for supplying themselves. Lately a little effort in seeking new markets has led to exports of American rubbers on twice the former scale, and there appears a prospect of a continued increase, showing that the right selling efforts will bring results abroad as well as at home. While Germany alone imports more pairs of rubber boots and shoes than the entire exports from the United States, our foreign trade in this line must still be considered small.

THERE HAS BEEN A FALLING OFF in the output of rubber from Bolivia, in spite of the efforts of the government and of private enterprise to exploit this most valuable product of that republic. Not that there is any lack of rubber there, but on account of the manifold difficulties of conducting business by means of foreign capital in a country which is rendered, by its poor transportation facilities, the most remote in the world from the centers of commercial life. It is inevitable that the whole of the rich rubber resources of Bolivia will become available, but perhaps not until the failure of many other enterprises organized to attain this end has been recorded. To the inaccessibility of Bolivia must be added the check to trade caused by recent polical disturbances in the Acre district.

GOODYEAR DINNER OF THE NEW ENGLAND RUBBER CLUB.

THE year 1900 being the centenary of the birth of Charles Goodyear, the inventor whose genius laid the foundation of the rubber industry, the executive committee of the New England Rubber Club decided to make the fall meeting and dinner of the Club a notable tribute to the great inventor's memory. The date of Goodyear's birth was December 29, but this date not being convenient for a meeting of the Club, it was felt that the date already fixed upon for the dinner—November 19—was sufficiently near the historic date referred to to render appropriate such a celebration as the committee planned. The dinner was given at the Hotel Essex, in Boston, and in every respect it proved a successful and interesting affair, besides being the largest gathering of rubber men that has yet been brought together under the auspices of the Club.

The arrangements at the new Hotel Essex are especially convenient for dinners such as that given by the New England Rubber Club. The approach to the dining hall is a long wide hall elegantly carpeted and furnished, and reached by a private staircase. On one side are two large reception rooms and commodious lavatory. The kitchen is on the same floor with the dining room and most convenient for serving. The tables were arranged in an ellipse, both dining rooms and tables being decorated with flowers in most artistic fashion.

In an ante room was displayed a life size half length portrait of Charles Goodyear, painted on a panel of India-rubber, prepared for the purpose by Mr. Goodyear. The painting was the work of a distinguished American artist, George P. A. Healy, who was contemporaneous with Mr. Goodyear in point of age. It was executed in Paris only a few years before Mr. Goodyear's death. The portrait of Goodyear presented on this page has been drawn from the painting. The painting, together with a portrait of Daniel Webster, the attorney for the Goodyear interests in the important patent suits which terminated in 1852, was kindly loaned for the occasion by Mr. Goodyear's descendants. There was also an exhibition of mementoes of the great inventor, which will be mentioned in detail in another column.

After half an hour spent in the anteroom the guests proceeded to the dining room where was provided the following attractive

MENU.

THE menu cards were decorated, on the front cover, with a portrait and *fac simile* of the autograph of Charles Goodyear, together with a rubber plant in natural colors. On the back cover were printed views (1) of the Roxbury Rubber Co.'s factory (1828), now used by their successors, the Boston Belting Co.; (2) the original Naugatuck factory (1844); (3) the factory of Bourn & Brown (1847); and (4) the Boston Rubber Shoe Co.'s original plant (1853). On an inner leaf were catalogued the Goodyear curious and medals on exhibition. Without the appropriate sentiments with which the printed menu was interspersed, the list of viands was as follows:

Lynnhaven Bays

Cream of Chicken a la Reine

Consomme Royal

Celery Olives Radishes

Boiled Kennebec Salmon

Sause Genoise

Pommes Chateau

Minions of Beefe Tenderloin Bearnaise

Brussels Sprouts

Parisienne Potatoes

Cigarettes Sorbet en Surprise

Roast Black Duck

Fried Hominy Currant Jelly

Celery Mayonnaise

Fancy Ices Port Salut Mocha

Cakes Fruit Cigars

During the dinner excellent music was furnished by the regular orchestra of the hotel. The floral decorations, which were in the best of taste, were furnished by Galvin, a well known Boston florist.

Full justice having been given to the dinner, the president of the Club, Mr. Henry C. Morse, in a few well chosen words, introduced as toastmaster ex-Governor Augustus O. Bourn, of Providence, Rhode Island, who started the speechmaking as follows:

SPEECH OF MR. BOURN.

TO THE MEMBERS OF THE NEW ENGLAND RUBBER CLUB: The President wishes me to express to you his gratification at the large number of the members of this Club who are present this evening. This is our second regular dinner only, and it argues well for the future of this Club, the members of which have gathered here to-night in honor of the discoverer of rubber. To-night is not the anniversary of the birth of Charles Goodyear (his birth having occurred in December), but as it is fitting that a dinner of this Club should be arranged at this time, let us consider that we are observing to-night the birthday of Charles Goodyear for the purpose, as stated in the call for the meeting, of making this dinner a notable tribute to the great inventor's memory, whose genius founded the rubber industry. It has been the custom in all countries to observe the birthdays of its great men, to honor their memory, to keep alive their great deeds—men who have been ornaments to the arts and sciences, great statesmen and warriors, philosophers and poets, philanthropists and martyrs. At this very moment the entire civilized world is preparing to cele-

brate the birthday of Him whose birth was heralded by the angels with glad tidings of joy. We keep the day of His death with sorrow and fasting, but the day of His birth we keep with joy and gladness, and with expressions of good will to all mankind, and especially to our fellow men. Our own country celebrates the birthday of him, who alone has been called the Father of His Country. We keep this day in honor, in acknowledgment of the great services which he rendered in peace and in war, also to express our gratitude for those services, and our devotion to our country, and to the form of government which he, and those who worked with him, instituted.

We also celebrate the birthday of Abraham Lincoln, a man who is known throughout the world as a man of uprightness, integrity, and ability; a man who preserved for us, and for centuries to come, that which Washington fought for. It seems, therefore, very appropriate that in the circle of this Club we should set apart a day in honor of the memory of one who laid the foundation of this great industry in which we are all so deeply interested—CHARLES GOODYEAR—to recall the trials and tribulations which he passed through, and to express our gratitude for the success which crowned them. Mr. Goodyear made his invention, I think, in the latter part of 1838, or early in 1839. Professor Silliman, an eminent scientist of Yale College, signed a certificate in which he stated he had seen experiments tried with Mr. Goodyear's prepared rubber, that it was not acted upon by heat or cold, and it retained it pliability even when placed between sheets of ice. Nathaniel Haywood invented a compound of rubber somewhat similar in 1838, and applied for a patent in October of that year. Charles Goodyear bought that patent, and it was issued to him as assignee of Nathaniel Haywood; therefore it is not unreasonable to suppose that he had made his accidental discovery that this compound of rubber and sulphur could not be changed by heat before he bought that patent from Nathaniel Haywood. Although he discovered it by accident, yet the invention was by no means complete; it was an invention which could only be discovered by accident. All the scientific men of the world had thought that it never could be reasoned that a compound of sulphur and rubber could be exposed to heat and thus become hard. You expose it to heat at 212° and it becomes soft; you raise the heat to 220°, it is still softer. It is still softer at 230°, 240°, 250°, and 260°. Now how could anyone suppose that a compound of rubber and sulphur exposed to heat would so change it that vulcanization would take place? Now, although Goodyear knew that there was a change, it took him years and years in laborious experimenting before he discovered the means which govern vulcanization. Those were years of hardship and suffering. He had no money to make his experiments with. Some of them were made in his wife's bake oven; he placed some compounds in pans and held them before the steam of the tea kettle; he tried every form of experiment, but all with no result; he had no money. In the space of time he perfected his invention. A patent was granted to him, and that was the foundation of this great industry, founded by a man without means—nothing but brains and perseverance.

The first toast of the evening is suggested by a letter received from Mr. Frederick M. Shepard, president of the United States Rubber Co. [The letter will appear further on.] We are extremely fortunate that we have with us this evening a representative of Mr. Goodyear himself, Mr. Nelson Goodyear, who is his grandson. I take pleasure in presenting to you Mr. Nelson Goodyear.

SPEECH OF MR. GOODYEAR.

IT gives me great pleasure, Gentlemen, to be here this evening, which of course, goes without saying. But I am really here in the place of Mr. William H. Goodyear, who is the second son of my grandfather, Charles Goodyear. My own father having died four years ago, really by precedent, my eldest brother, Charles Goodyear, 3d, should be here in my place, but he also was unable to come. Professor Goodyear's absence was occasioned by his having an engagement for this evening, and my brother's by his ill health, which has confined him recently to his house.

I believe that Mr. Pearson is going to address the Club later on, giving some data and statements concerning my grandfather's work, and as I was only born twelve years after my grandfather's death, of course I cannot give any personal reminiscences of his life, and I can only state a few facts which are of interest, and which are a sort of tradition in my family, and which have been largely published by Mr. Pearce in his book on the "Trials of an Inventor," and also by Mr. Parton in the *North American Review* of 1865. My grandfather was very poor; he was a very small man, and he suffered very much from indigestion I remember having heard. One instance, which illustrated to me as a boy that his health must have been poor, was that there was a suit of chamois skin, an entire suit, which he wore, and which I used as an Indian suit. It was out at Newton, Mass., when I was about twelve years old, and I used to chase around with the other boys dressed in that suit as an Indian, and I had it all fixed up with turkey feathers, etc. In connection with this fact of my grandfather's poor health, I want to call your attention to a story of my own father, in which he made a statement that he thought that my grandfather's ill health was partly due to the fact that he wore his own rubber garments to a great extent, and for a number of years he wore a rubber vest and rubber underclothing, which was of great detriment to his health. As I came in I noticed in a case near the door the medals which were given to my grandfather at the exhibitions in London and Paris. It might, perhaps be interesting to know that my father was on his way to visit my grandfather who was in prison at Clichy, in Paris, when he was met by his brother in law, with a statement that my grandfather had just been awarded the Cross of the Legion of Honor. Of course, it is well known that he was in prison when this honor was bestowed on him. I don't know that there are any other points which can not be better expressed by the older members who are here who have precedence, and whose age enables them to go back to my grandfather's life; so I will sit down and let the other gentlemen give more interesting facts.

Mr. Bourn said: "The great powers of Europe, who have for many years been watching each other as a cat would watch a mouse, have been still busier this last year watching each other in China on account of the war. We have no representative from there this evening, though we had hoped, however, to have representatives from two of the South American powers, Brazil and Bolivia—ministers from these countries who had accepted the invitation to be present at this dinner, but at the last moment were obliged, by pressure of public affairs, to send their regrets.

"We have, however, with us this evening one of the 'Powers' of Massachusetts, who will speak to us shortly on the subject of 'The Manufacturer's Debt to the Inventor.' I now take pleasure, gentlemen, in introducing to you the Hon. Samuel L. Powers, member of congress elect from Massachusetts."

SPEECH OF MR. POWERS.

MR. PRESIDENT AND MEMBERS OF THE NEW ENGLAND RUBBER CLUB: Some two years ago a Hibernian residing in South Boston came over to Boston on a Saturday evening to spend a portion of his week's wages. He was returning early in the morning to South Boston and when he came down about to Dover street bridge he met a police officer and he said to him: "Would you mind telling me what time of night it is?" The policeman took out his watch and said: "It is 2 o'clock sir." He said: "I did not quite hear; would you mind saying it again?" The policeman said in a still louder tone: "I said it was 2 o'clock." The man said he did not quite hear, and asked if he would mind saying it again. The officer said once more, in a still louder tone: "It is 2 o'clock in the morning," but the man said, "Excuse me, sir, but I did not understand you." The officer looked at him, felt for his stick, and gave him two sharp cracks across the back, as he asked: "Do you hear that?" The Hibernian said: "Yes, and I thank God that I did not meet you two hours ago."

Now, my regret is that I did not meet this company two hours ago, instead of the time I did, because if I had I would have been able to enjoy this dinner with the members. However, as I came in and noticed the weather, rain falling, I could not but think, Mr. President, that it was a very appropriate evening for this meeting. The fact is you gentlemen never look for sunshine. You always look for rain, and the

harder it rains the more pleased you are, and this very fact that you are organized and located here in New England is a great advantage to the industry, because we have all kinds of weather here, and you are obliged, if you want to protect yourself against all kinds of weather, to always carry a stock of rubber goods. Why, it is said that in 1834, before Mr. Goodyear had discovered the vulcanization process, they had another process which they supposed was going to be successful, and a company located, I think, out here in Roxbury, known as the Roxbury India Rubber Co., and it was, I think, in 1834 that President Andrew Jackson visited Boston, and, as it was a rainy day, they clothed him with clothing made with the goods of the Roxbury company, and he rode though the streets of Boston exhibiting those goods. Now, just think if you had those chances in these times, and you could clothe William McKinley with some of your latest mackintoshes and ride him through the streets on a horse and exhibit your goods. [Applause] Or suppose you could do this same thing to that other distinguished gentleman who desires to be taken in out of the wet, Mr. Bryan, giving him some of your goods and exhibiting him; it would be a great advantage to you, but your industry is one that there is a great deal to be said for it.

The whole history of the rubber industry in the United States is one of romance. In 1800, the year that Mr. Goodyear was born, the first rubber was brought to the commonwealth of Massachusetts, and after all of the experiments that had been made up to 1835 had proven a failure, and the public had said: "This is the end of all attempts to utilize the sap of the rubber tree," Mr. Goodyear took up that question. He was a Connecticut Yankee. He had all that inventive genius of the citizens of that state. A portion of the time that he was experimenting was spent in jail, but he was working all the time upon that great question of whether this sap which came in lumps from the trees in South America could be utilized and be of benefit to the industry, which afterwards proved so successful. Think of those sleepless nights; of those days when he worked over this question of the vulcanization of India-rubber, and, as has been said here to night by your presiding officer, it was discovered in the end by an accident. That accident, if I remember correctly, took place in his own kitchen, when he threw together some sulphur and rubber which, exposed to heat, made the rubber soft, and this showed at last that he had obtained a process, and out of that process grew this great industry. That was the foundation of it, and out of that has grown an industry which to-day, if I am correctly informed, has brought into this country over $75,000,000, and what is more, in these days when the seller has to seek the buyer, and the buyer does not seek the seller, you have your own market right here in the United States. Of that amount, $75,000,000, which you produced, less than 2 per cent. is sent into foreign markets. The American people are your consumers. You have not got to look for a market in the Philippine Islands, or for a market in Puerto Rico. You have simply got to look for your market in the United States.

This wonderful industry which has grown to-day to such a large extent, was brought about by the inventive genius, and through the sagacity of the American inventor, and has become one of the first industries in this country to-day. I was not informed by your presiding officer that I was to speak on the great industry of the vulcanization of rubber, which has grown up with this closing century. That is a great subject, and it takes a good deal of time and preparation, but we may bear in mind, Mr. President, that this country has grown to-day to have a population of nearly 80,000,000, and that it has $90,000,000,000 of valuation, that during the past ten years there has been an increase of $25,000,000,000 in the valuation of this country, which in other wordc could be said to be savings of the American people. The American people are better fed, better clothed, and better housed than any similar number of people anywhere on the face of the globe. By all this you get some idea of the growth of the century that is just closing. Why, the growth of this country, when you undertake to compare these figures in comparison with the figures at the commencement of the century, is something amazing. When you find that $25,000,000,000 of valuation represents a value greater than this country had at the breaking out of the civil war, you get some idea of the rate at which we are accumulating money in these United States, and when you take into consideration that the wealth of this country at the present time is greater than the wealth of the entire world was at the time of the signing of the Declaration of Independence, you get some idea of the growth which is taking place in this nation during the close of this century.

Mr. President, the inventive genius of the American people has done much towards the building up of all industries. Men who, like Charles Goodyear, were born on the soil of the state of Connecticut, have done much towards the development of this country, but when we think of the struggles of these men—Charles Goodyear was struggling on all those years, years of suffering and hardship, from 1835 to 1838, when he was in prison a greater portion of the time, studying over that great question which sooner or later was to revolutionize this industry—we cannot but look back on their deeds with a feeling that they have merited the full reward for their services. Even when Mr. Goodyear patented

FAC SIMILE OF COUNCIL MEDAL AWARDED TO CHARLES GOODYEAR, AT THE GREAT EXPOSITION OF THE WORKS OF INDUSTRY OF ALL NATIONS, LONDON, 1851.

that invention it was looked upon by people as an impossibility, but he kept on working, and it was not until 1852 that that patent was finally admitted, and had to stand, and when you bear in mind that the greatest lawyer and statesman which the commonwealth of Massachusetts ever produced was the one that defended that patent, and finally received a favorable award before the highest courts of the country, you cannot but feel that Massachusetts, through its great lawyer and statesman, Daniel Webster, has done something for the protection of American genius in the particular case that is now before us.

Now, Mr. President, I did not propose this evening to take the time of this company at dinner in discussing the changes that have taken place in this century that is just closing, but I cannot but express my feeling when I look back and see the things that have been done. We have become a great nation, and we have become a great nation by reason of the intelligence of our people; because we believe in the education of the masses; because we believe that the Republican institutions rest upon the intelligence of the people, and to-day we are expending for the education of our people a sum of money greater than that expended by Great Britain, Germany, Austria, France, and Italy combined, and so long as we protect the inventive genius of our people; so long as we educate our people to be intelligent citizens; so long as we pass the proper laws for the protection of industry; so long as we protect the capital that is vested in this business; so long as we give to labor its proper protection so long shall we remain a great people, and so long will the American institutions be safe and secure.

I thank you, Gentlemen, for your kind attention.

Mr. Bourn said: "As Mr. Powers has stated, the Goodyear patent was not established until after years of tedious and hard fought litigation. The most eminent lawyers of the land were engaged in this litigation, and we believe it is a fact that down to 1852, no other litigation had occurred in this country which attracted such widespread attention as the Goodyear patent case. Daniel Webster, as Mr. Powers has said, was counsel for Charles Goodyear. Rufus Choate, of Massachusetts, than whom no better lawyer ever existed, except Daniel Webster, was counsel for the other side, and you can understand that when two such giants took hold of the case, it was fought to its utmost issue. I had some little experience myself in the Goodyear litigation, in the case of Goodyear *versus* the Providence Rubber Co., which occurred some few years after 1852. That case was fought, perhaps, not with such eminent counsel as the other, but it was fought as closely. It was argued on behalf of the complainants by ex-Judge Putnam. For the defense Chief Justice Black and President Garfield were the counsel. We have with us this evening a gentleman who has looked into this litigation which took place in 1852, which was the case of Goodyear *versus* Day, and was argued at Trenton, New Jersey, I think, before Judge Greer. This gentleman is well fitted, not only from having examined this case in particular, but from his long experience in patent cases to speak upon this subject. I, therefore, have the great pleasure of introducing to you Hon. James J. Myers, speaker of the Massachusetts house of representatives":

SPEECH OF MR. MYERS.

MR. PRESIDENT AND GENTLEMEN OF THE NEW ENGLAND RUBBER CLUB: I esteem it a high privilege to come here to night to say a few words upon one of the best and most interesting questions that is suggested to the members of this Club, at this, their third meeting. It is very evident, it seems to me, that at this early stage of the Club's life it should recognize in this way its interest in the life of the man whose services they are to commemorate to-night, and who express its appreciation of the work which he did, and the indebtedness of its members in their business and their lives to the services which he rendered to the state, and to the country, and to the whole world. I shall not attempt to take up the time of these gentlemen here to-night to go over all the details of that protracted and wearisome litigation which resulted in sustaining Mr. Goodyear's patent. It would be unkind to you, even were I to do it as well as it ought to be done. It would be wearisome to you were I to do it the best that I can. All I can say on this occasion, speaking so briefly in a word or two, about the importance of that great litigation is to just attract your attention for one moment to the interesting circumstances that attended it, and I think they were interesting. Whether the case is viewed as one which concerned us all who were to come after Goodyear, or whether it is viewed from a standpoint of the client who had toiled and suffered and struggled through the ten years or more that preceded that litigation, or whether the point of view of the great men who were counsel in that controversy, it, of course, has the greatest interest attached to it.

Mr. Goodyear himself was never content with the work which he was doing. He was constantly sure that there was something better than he had yet done, and he was struggling always to improve the services that he had rendered. He died poor and insolvent. I read on the menu here to-night something that struck me as exceedingly touching, and yet it is very appropriate to the life and the services of the man whose birthday you are celebrating to-night, and as I look back on what he has done, I cannot but read you these lines:

"Looking down the ladder of our deeds
The rounds seem slender: all past work appears
Unto the doer faulty: the heart bleeds
And pale Regret comes weltering in tears
To think how poor our best has been, how vain,
Beside the excellence we would attain."

I submit that if the poet had undertaken to write a fitting thought for Mr. Goodyear and his struggles, if he had undertaken to impart in a few lines that he had felt that he had only done his best, he would have hit it more closely than he has done in these few lines that are upon the menu.

For myself, it seems rather touching that that man should have had such a hard lot when he was doing such work. I hold in my hand a copy of a letter written by Mr. Goodyear, which, I believe, Webster used in his great argument, and it was written from a prison we have in this city where we are gathered. The last lines seem to me to be rather touching, and if each member of this Club could read it, and look back on all those years of toil that Mr. Goodyear passed through, I think it would be very interesting to them. The lines are as follows: "I have the pleasure of inviting you to call and see me at my present place of business, and to communicate with my family, and possibly to establish a new rubber factory for myself on the spot. [He was then in prison. He felt the greatest anxiety for his family.] My father will probably arrange my affairs in relation to this hotel which, after all, is, perhaps as good a resting place as any this side of the grave."

Said Mr. Webster, in his notable speech: "I believe that the man who sits at this table [and that man was Mr. Goodyear]—I believe that the man who sits at this table, Charles Goodyear, is to go down in history among the arts in this country in that great class of inventors, at the head of which stands Robert Fulton, in which class stand the names of Whitney and Morse, and in which class will stand, not far removed, the humble name of Charles Goodyear." I think you will agree with me that if Mr. Webster could have looked forward from 1852, in court, when he was delivering the last great oration that he ever made, before he went down to Marshfield to lay down his life despondent and with regret, if Mr. Webster could have looked forward and seen this great city of Boston, so developed and so enlarged from the Boston that he knew, and could have seen this beautiful hotel in which we are gathered, and could have seen the members of this Club gathered here to-night to pay some kind of tribute to Charles Goodyear, he would say that at least a portion of his expectations had at last come to pass, and had come to pass with this century which is just closing. I wish that he could have seen all this, and could have said a few words which we could have all listened to to-night.

In anticipating such an action there is much to say, but Webster described the man and his struggle, and he charged the court that it should at least render a decision that would give him his reward for all his services, and all that he had borne and stood, but notwithstanding all the difficulties he had encountered he went on: if there was reproach, he bore it; if there was discouragement he stood it; he went on and these people followed him step by step from 1834 to 1839. They would look

with ridicule upon the great inventor's genius, but for all this he had perseverance and he pushed on. Scientists looked upon him as a man who had gone wrong, but we are all indebted to Charles Goodyear, for he made a great addition to the resources of mankind, and to-night this gathering recognizes all that; recognizes the character and services of the client and litigant in that case, where in court Webster put his eloquence and strength into that case, when he emphasized, as only he could emphasize, what he regarded as two important points in that case, and it would be worth the while of any gentleman sitting here at this party to read two or three pages of that argument, in which he treats on the question of whether or not Charles Goodyear was the inventor.

It was just like Webster; he pleaded with the greatest eloquence, setting forth all details of the case, and he brought the attention of the court to the fact that "If Goodyear did not do it, who did?" Here was a great achievement. No other man on the footstool had claimed it, or could claim it. Then why shall not that man have it, and he emphasized 'that' until he got it, and when Mr. Webster did this work, we are to bear in mind that he was in the full strength of his career, ability, and greatness. It was twenty-two years after he had delivered the *great* oration. It was his master achievement. It was more than thirty years, after his great argument in the Dartmouth College case, which stands, perhaps, one of the leading fundamental principles which has helped to keep alive and save the laws of this country. In this case, as in the case of Goodyear, he distinguished himself, but the case of Dartmouth College was of a different nature from that of Goodyear's. It was a question of money with Dartmouth College, and it was to give to a man what rightfully belonged to him in the Goodyear case. He argued for the *alma mater* in the Dartmouth College case, and it is for his eloquence and way of pleading that has placed him at the head of America's ablest lawyers. He threw his soul into the case, as was noticed by those who saw the case tried, and it would seem to me, as I read the argument—perhaps it was because he had so much the better of the case—that he made even Rufus Choate feel small, so the case went with Mr. Goodyear. He got his reward, and yet he did not get it. He died, as I have said, insolvent, but his reputation and his family are not insolvent. This gathering here to-night is but a small part of the great number of associates which Mr. Goodyear is gathering year by year the country over, in this magnificent land of ours of which my friend Powers has spoken so well, and whose future we believe is as much promising, and as much more grand than that of to-day, as that of to-day is sublime, yet we have to look back to the time when Mr. Webster made his great argument, in the time of small means, the last argument of his life, in 1852. I wish to extend to the members of this Club my thanks for the opportunity of speaking to you to-night.

Mr. Bourn said: "Mr. Goodyear was not only an inventor, but an author. He wrote during the latter years of his life a book in which he portrayed in simple, but eloquent language the story of trials and tribulations which he passed through during the years that he was struggling to perfect his invention. In fact he told the story of his life in a few simple words that all could understand and appreciate.

"We have with us this evening a gentleman who is the son of Mr. Hunt, founder of *Hunt's Merchants' Magazine*, which some thirty or forty years ago was the most prominent magazine in this country, and was the first magazine to publish an intelligent article upon the subject of India-rubber, and Goodyear's invention—Mr. Freeman Hunt, who will speak to us on the subject of Goodyear as an author. I take great pleasure in presenting to you Mr. Freeman Hunt."

SPEECH OF MR. HUNT.

MR. PRESIDENT AND GENTLEMEN OF THE NEW ENGLAND RUBBER CLUB: I feel sure that the Chairman will pardon me in the introduction which he has given me, complimentary as it is, if I cite a little incident. As Richard Yates, son of the Governor of Illinois, said, the only thing that he had against himself was that he was the son of his father, the late governor of Illinois, but I also feel like a minister, that this subject should be introduced by a few texts from the scripture. Now, what I propose to say in reference to Mr. Goodyear, is that he was not only exceedingly smart, but he had literary merit. The book that he wrote bears an impression of his character, and it will serve as a complement to all the other work and services that he rendered as an author and as an inventor.

In the first place, we have seen the book. It is a book of between 600 and 700 pages. I believe there is only one copy extant of the original book. It was not written to sell, but it was written, as Mr. Goodyear stated himself, for the purpose of claiming for his country and for himself the merit of its rightfulness on the subject of the manufacture of rubber, and also for the purpose of dissemination of the knowledge of a matter which we all so well know. The book is printed on rubber, its component parts are rubber, and it treats on rubber from beginning to end. The index and preface, and its contents are what might be called his autobiography. You get a clear idea of what the man was; he has stamped his character on it, and you also get a clear idea in regard to his invention, and in regard to his life. There is one thing about the book which, perhaps, seems rather odd, but if you read the book carefully a minute or two you will discover that there is also literary merit there. Another thing you will notice, he always speaks of himself as the third person. All through the book you will find it so. It is a pleasure to take that book and compare it with some others, where one part has a contradiction of another. There is another point in it that I want to speak to you about, and that is that during all the years of his work he attributes all his success to his Creator, and he gives the credit of many of his wonderful works to the act of Providence, as he says he was so directed. Now, it is sometimes better, in speaking on a subject of this kind, to quote directly from the work, so that you may know more clearly what it contains. For instance, he says: "I would refer everything to the Creator, who directs the operation of all things." He places himself as one executing some plan of his own under the direction of Providence, and all this serves to add to his memory. He speaks of all his work in a very modest way. He treats it as though it occurred by accident. All that he has written goes to show that he had literary abilities, as well as that inventive genius which made him so prominent among men, and I think we should not scorn him as a literary man as he has clearly shown his literary abilities. It seems to me that, in reading all that he has written about his work, his struggles and his trials, he very clearly shows what was in his own mind, and he does all this in the most simple manner. All that he has done in his efforts to perfect his wonderful invention should be appreciated by all mankind, and should be considered an honor to his name. I thank you, Gentlemen, for your attention.

Mr. Bourn said: "As in the family circle, the purest memories are of those who have gone before us, so in the circle of this Club we should not forget those men who have been associated with us in the past, and who, one by one, have dropped away and crossed the dark river, but we should hold their memory bright and sacred, and on occasions like this should recall them to our minds. All those men have dropped away in times past, so shall we in the future, one by one, drop away. It always has been so, and it always will be so, and as one by one the golden lamps go out, the watchman on his lonely round cries out, 'All is well.' He shows no fear or doubt. All is well with us: let us hope it is all well with those who have gone before us, but do not let us forget the next toast, 'The Absent Ones.' I take pleasure in introducing to you Mr. Arthur W. Stedman."

MR. STEDMAN'S RESPONSE.

ON occasions like this it is always well to think of our departed friends, and to think of the old true saying, "Death is Ever Near."

I have here a paper prepared in honor of our absent friends, which I will now read to you.

THE ABSENT ONES.

Those past masters in the art of dinner giving, the ancient Egyptians, at their elaborate feasts, reserved one seat for a skeleton, an eloquent suggestion that no matter how engrossing may be the pleasures of life, death is ever near.

Our brighter philosophy and surer hope banishes such grim reminders, but none the less, death has been and is present, and has claimed many of the brilliant and successful members of the New England rubber trade, In their memory it is fitting at such a gathering as this, that we should pause and give a few moments to reverent reminiscence. Recollections of Goodyear, Chaffee, Upton, and Haskins, are to most of us exceedingly vague ; but there are pioneers and leaders whom we personally knew and appreciated, and who are vivid memories to us. Joseph Banigan, courtly, successful, self-made, always master of himself and usually of his circumstance ; Eugene H. Clapp, aggressive, positive, overflowing with energy and vitality ; Charles H. Clapp, intellectual, commercial, warring with death and disease for years, yet ever capable and cheerful ; Wheeler Cable, radiating old fashioned honesty and good sense, the firm friend of justice and right ; Henry G. Tyer, the courteous English gentleman, and the able American business man in rare combination ; George M. Allerton, senior, dignified, capable, fair-minded and successful ; Henry A. Hall, active, progressive, the typical old fashioned lover of good horses ; Alfred Hale, burly, outspoken, with a heart as tender as a woman's. These, and many others we have known and loved.

Had death spared these gentlemen, how they would have graced this board to-night, and how glad we should have been of their presence.

Bowing, however, to the inevitable, and thinking of them as dear friends whose yearnings and strivings are of the past ; may we in their memory, drink the toast "The Absent Ones." [Here the members arose and paid tribute to the toast.]

Mr. Bourn said : "I think one of the oldest men connected with the rubber business, in fact the oldest that I know, is Mr. Lewis L. Hyatt, who was formerly associated with Christopher Meyer in the New Jersey Rubber Co., at New Brunswick. Their factory was run for a number of years, I think until it was burned down. Mr. Hyatt then moved to England and engaged in business, and is still engaged in business, and is between 80 and 90 years old : I do not exactly remember his age. The Secretary of the Club communicated with him and asked him to be present at this dinner, but he wrote a letter stating that he could not come, but we have his son with us this evening, and he will read the letter written by his father." [Here Mr. Hyatt's letter was read by Mr. Edgar S. Hyatt.]

The Assistant Secretary of the Club, William H. Gleason, next read a number of letters of regret from persons who had been invited to the dinner but had found it impossible to attend. The letters will be found further on in this report.

The Toastmaster then said : "A gentleman connected with the United States Rubber Co., of which Mr. Shepard is the president, has suggested that this Club take some steps from now, or at some future time, towards the erection of a statue in the memory of Charles Goodyear. Perhaps that will come at some later day. It is appropriate, however, to recall that Charles Goodyear was born in New Haven just one hundred years after the founding of Yale College. The first president of Yale and one of its founders was Abraham Pierson, whose statue adorns the college green in New Haven. Charles Goodyear therefore stands as a connecting link between the founder of Yale and this Club, for of its membership is his lineal descendant Mr. Henry C. Pearson, who will now speak to you."

MR. PEARSON'S SPEECH.

MR. CHAIRMAN AND GENTLEMEN OF THE NEW ENGLAND RUBBER CLUB : I have been obliged to prepare four different speeches on Mr. Goodyear, and am now a trifle puzzled to know which one is called for. The fact is that I am here simply as an understudy for four of those who have already spoken. Let me explain. Last Friday I was called up on the long distance telephone and recognized the musical voice of the Hon. L. D. Apsley. "Now Pearson," said he, "you know Sam Powers is booked for a speech." "Yes," I replied. I knew whom he meant, although I don't usually call him "Sam." "Well" said Mr. Apsley, "I learn that rubber has been discovered in the Philippines, and it may be that President McKinley will feel that Sam's speech will stir Aguinaldo up, and so he is likely to call him off at the last moment. So you must be ready to fill the gap." "All right," I said, and so I prepared what I thought would be Mr. Powers's speech.

Shortly after this a modest member of this club who sells considerable hose up at the State House came to me with anxious mien and said : "James J. Myers, Speaker of the House is going to speak on the Goodyear dinner, is he not?" "Yes." "Well I'm afraid there will be trouble. I've seen him dismiss a whole assemblage of men before they had a chance to say a word. He's liable to do it to your crowd." "What was his excuse?" I asked. "Oh, I don't know. I think he said something about 'quorum' or maybe 'twas 'no rum' and if it's that last, he's got us sure." So I prepared another speech.

A little later a Cambridge man came to me and said, in his friendliest way : "Freeman Hunt is going to speak on 'Goodyear as an author at your centenary dinner?" "Yes ; why?" "Nothing, only you are taking great chances. The man is a disciple of Ignatius Donnelly." "What of that?" "Why, don't you see that a man who believes that Bacon wrote the works of Shakespeare is likely to find a cryptogram in the preface of the Goodyear book that will convince him that it was written by Charles R. Flint." So I prepared a third speech.

To-night as I was shaking hands with and congratulating myself on the good attendance, a member of the executive committee rushed up and said "Nelson Goodyear is lost. He hasn't shown up at all and we cannot find any trace of him. You must take his place and speak for the Goodyear family." I therefore hastily prepared a fourth speech.

None of the predicted calamities happened, however, and each speaker said exactly what I had planned to say, to a word, and said it even better than I had planned.

But to settle down to a serious word or two, there is one point in Goodyear's character that I wish to emphasize, and that is his generosity. He did not know the value of a dollar, and he didn't care to know it. It was too small a detail. He gave the best that was in him of health and strength and earnest endeavor that he might confer a blessing on his country—on the world. It is evident that that same trait still runs through the Goodyear family. Were I the owner of that magnificent painting that is exhibited here to-night I should be very, very slow to grant permission for it to be taken hundreds of miles from my home. If I possessed that priceless rubber book, treating of rubber, printed on rubber, and bound in rubber, I should not willingly lend it to the most respectable assemblage of rubber men ever gathered. I should be afraid that Theodore Bassett would turn it into reclaimed rubber.

The story of Goodyear is a pitiful one. It is so pitiful that I don't want to talk on it. In jail in Philadephia, in New York, in Boston, in Springfield, in France, hounded by deputies, by sickness, by ill health, by the sort of scorn most painful to a sensitive man—for all this, he was always cheerful. If I had suffered for fourteen years like him I would have got square with somebody. He was always the same, and I say it was not an accident by which he made his discovery ; accidents do not happen with fourteen or fifteen years of preparation. He knew what he was doing, and further than that he knew what his invention would mean to the world. He had a sort of prophetic instinct, I think, that carried him through all his trials.

There is one incident I recall in his painful career that I want to touch upon, of them all, perhaps, the most touching. When he lived in Woburn, (this was in the middle of winter) he awoke one morning and found that the house was almost covered with snow. His wife was sick ; death had been in the family a short time before. There was not a particle of food in the house ; there was no fuel, and the clothing was not sufficient to keep anybody warm, and as he stood looking out on the drifts he wondered what he could do. He knew something had to be done for the sake of his family. He thought of all the people that he knew, and finally remembered one man that had bowed to him a little more kindly than any other neighbor, and thought perhaps he would help him. He went to see this man, wading through the snow for several miles, made his request, and, thank God, it was not refused.

It is a pitiful story. Its bright side is the heroic Goodyear spirit that still survives—a spirit of generosity and self-sacrifice that should exist

in greater measure in the rubber trade than any other trade in the world.

Many now called for Mr. Apsley, and the toastmaster said: "In response to many calls I now introduce to you the Hon. L. D. Apsley."

MR. APSLEY'S SPEECH.

MR. PRESIDENT AND GENTLEMEN: It was well understood by the secretary of this Club that I was not to speak this evening. I realize that Charles Goodyear left to us the knowledge that he thought best regarding the vulcanization of rubber, and I want to let you know that it is the best principle not to overvulcanize rubber goods. Overvulcanization of anything is a distinct damage, to rubber goods or a rubber meeting. Fearing overvulcanization to-night I am going to thank you for this opportunity, but refrain from further speaking.

Robert B. Baird moved a vote of thanks to the Executive Committee for the success of the dinner. Carried. William H. Gleason moved a vote of thanks to the Goodyear family for the loan of the portraits and curios exhibited, which was also carried.

SOME OF THE LETTERS READ.

FROM THE BOLIVIAN MINISTER.

Legacion de Bolivia,
Washington, D. C., November 10, 1900.

MR. HENRY C. PEARSON, Secretary New England Rubber Club, Jamaica Plain, Boston, Mass.—*Dear Sir:* I have delayed my answer to your letter 29th October, being desirous of accepting your kind invitation at the dinner which will be given by the New England Rubber Club in honor of the centenary of Charles Goodyear's birth, on the 19th instant.

However, many attentions I have here impede that pleasure, but I send you the expression of my sympathy as representative of a country which is one of the greatest producers of rubber in the world.

Please accept my thanks and congratulations and I remain faithfully yours,

FERNANDO E. GUACHALLA.

FROM DESCENDANTS OF CHARLES GOODYEAR.

Museum of the Brooklyn Institute of Arts and Sciences,
Eastern Parkway and Washington Avenue, Brooklyn, N. Y.
October 22, 1900.

HENRY C. PEARSON, Esq.—*My dear Sir:* Your invitation is gratefully received and heartily appreciated. As the only surviving son of Charles Goodyear, it comes to me most appropriately. It would give me most sincere pleasure to come to Boston for this dinn r, but I find, on looking at my engagements, that I am down for a lecture for the New York Board of Education on November 19, and I cannot break this engagement. In default of my presence, the proper person to invite would be the grandson of Charles Goodyear, the son of my deceased brother, of the same name. Faithfully yours,

WILLIAM H. GOODYEAR.
[Curator of Fine Arts of the Museum.]

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109 West 111th street,
New York, October 31, 1900.

HENRY C. PEARSON, Esq.—*My dear Sir:* Yours of the 23d and 29th duly received.

My ill health and absence from my office and from my residence accounts for my not having acknowledged your letters earlier.

I sincerely regret my inability to be present at the dinner of the New England Rubber Club next month. I regret exceedingly also that Prof. Goodyear has been obliged to decline. I have communicated with members of my family who have in their possession a portrait of my grandfather, Charles Goodyear, by Healy, painted on a panel of hard rubber, which was specially prepared for the purpose. This (life size) portrait is at Flushing, L. I., and will be cheerfully loaned for exhibition at the New England Club dinner. The Cross of the Legion of Honor, and also some other small rubber articles of historical value will be loaned for the same occasion if you desire it.

Regretting exceedingly my inability to attend the dinner in Boston, I am yours very truly,

CHARLES GOODYEAR.

FROM CHARLES MACINTOSH & CO., LIMITED.

Manchester, England,
October 26, 1900.

HENRY C. PEARSON, Esq., Secretary New England Rubber Club, Jamaica Plain, Boston, Mass., U. S. A.—*Dear Sir:* We beg to thank you for your letter of the 10th instant, and to request that you will convey to the New England Rubber Club our warmest thanks for their kind invitation to dinner on the third Monday in November, on the occasion of the celebration of the birth of Charles Goodyear.

Had one of our directors been in the United States, it would have given him very great pleasure to be your guest on that occasion, and we would have welcomed the opportunity of making the acquaintance, through him, of the members of your Club; but we regret that we are not able to accept your kind invitation.

We, being, as you say the oldest establishment—on this side of the water, at any rate—in the trade, naturally have held the name of Charles Goodyear in high esteem, as the original inventor of the curing or vulcanizing process, without which our trade could not have attained its present dimensions, and rubber would have been of small account in the world.

On such an occasion as the present, it may be of interest to your Club if we take the opportunity of relating the origin of the garment called a "Macintosh," which, as you are aware, received its name from us.

Charles Macintosh was a manufacturing chemist in Glasgow in the early part of this century, and at the time when gas was first introduced, tar and other liquids produced in its manufacture were supposed to be of no value. Mr. Macintosh commenced experiments with this refuse, and found that he could produce naphtha, for which at the time there seemed to be no demand. He then experimented with this naphtha and found, amongst other things, that it would dissolve India-rubber into a varnish, which, when spread upon cloth, made it waterproof. He obtained his patent for this invention in 1823 and established a factory for the production of waterproof articles in Glasgow. Wishing to extend his business, he joined Messrs. Hugh and Joseph Birley, who were cotton manufacturers in Manchester, and there they built a small factory for the purpose of the waterproof business. This building was left unfinished at one end so that if the new venture turned out a failure it might be completed as an addition to the cotton factory. The building is unfinished at the present time, and we hope it may remain so.

We wish every success to your dinner and that you may have an enjoyable evening. We are, dear Sir, yours very truly,

CHARLES MACINTOSH & CO., LTD.
R. K. BIRLEY, Managing Director.

FROM MEMBERS OF THE TRADE IN AMERICA.

Far Rockaway, Queens Borough, Long Island, N. Y.
November 13, 1900.

NEW ENGLAND RUBBER CLUB, Henry C. Pearson, Secretary.—*Dear Sirs:* Owing to my ill health, I have taken, for a number of years, no action for and in business, and it is for this reason I must decline your invitation to the Goodyear dinner on the 19th of November, 1900.

Thanking you very much for the kind thought and remembrance of my life spent in the interests of the Rubber trade. Very sincerely,

JOHN H. CHEEVER.
[President New York Belting and Packing Co., Limited.]

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127 Duane street, New York,
November 12, 1900.

HENRY C. PEARSON, Secretary, Jamaica Plain, Boston, Mass.—*My dear Sir:* I have received the invitation of the New England Rubber Club to the Dinner to be given on the 19th inst., being the centenary of the birth of Charles Goodyear, the inventor of the process for vulcanizing rubber.

It would afford me a great deal of pleasure to be with you on that occasion, but unfortunately it will be impossible for me to attend.

Regretting that I cannot avail myself of the opportunity to meet so many friends and acquaintances, and with my best wishes for the success of the entertainment, I remain, very sincerely yours,

A. SPADONE.
[President Gutta Percha and Rubber Manufacturing Co.]

787 Broadway, New York,
November 12, 1900.

H. C. PEARSON, Secretary, Boston, Mass.—*My dear Sir:* Your invitation to attend the "Goodyear Dinner" is at hand. It is appropriate that the New England Rubber Club should give such a dinner, and so keep in the minds of the rubber trade, and the public, the sense of the obligation the world owes Charles Goodyear. I cannot express my sentiments better than by recalling a resolution which I offered, and which was unanimously adopted at the first and only general meeting of the rubber trade, held in New York about twenty years ago, Governor Bourn presiding, viz.:

"That this Meeting recognizes the fact that this great contribution to health, comfort, and convenience, so important in arts and manufactures, comes by the Labor, the Devotion, and the Genius of Charles Goodyear."

I regret that other engagements will prevent my attendance. Yours very truly,

FRED'K M. SHEPARD.
[President Goodyear Rubber Co. and United States Rubber Co.]

New York, October 31, 1900.

NEW ENGLAND RUBBER CLUB, Henry C. Pearson, Secretary, Jamaica Plain, Boston, Mass.:—*Dear Mr. Pearson:* Your letter of the 25th instant was handed to me by Mr. Hill, and I have deferred answering it until now, hoping that it might be possible for me to accept your kind invitation. I find, however, that a business engagement in the South, arranged some time ago, cannot be changed. I, therefore, regret that it will be impossible for me to be present at your dinner.

With best wishes for its success, believe me, yours very truly,

CHARLES R. FLINT.
[Treasurer United States Rubber Co. and Chairman of Board Rubber Goods Manufacturing Co.]

FROM LEWIS LEGRAND HYATT.

111, Stapleton Hall Road,
London, November 1, 1900.

TO THE NEW ENGLAND RUBBER CLUB—*Gentlemen:* Having heard that the Club is to give a dinner to celebrate the one hundredth birthday of Charles Goodyear, perhaps I may greet you upon this occasion, as I believe I was one of the first to enter the rubber business after the discovery of the vulcanization of rubber, for which we give Goodyear the honorable credit. Perhaps I cannot say much more to enlighten you in reference to this truly great man than what you already know; still perhaps what little I have to say may go on record to his credit. I am speaking mostly from memory, and therefore may not be exact, so please excuse any errors I may make.

Soon after vulcanization was discovered I entered the business, in 1845, with John R. Ford and Christopher Meyer, at Milltown, New Jersey, whom Charles Goodyear had licensed. About this time he was engaged in a suit with Horace H. Day of New Brunswick, N. J., who was infringing his patents. Daniel Webster was prosecuting and Rufus Choate defending. These were both great Boston lawyers, and it is well known Goodyear was the victor. This was the last suit Daniel Webster ever conducted; he put an end to the rubber litigation and Goodyear's patents were established.

About ten years later, in 1855, I associated myself with Hutchinson, Henderson & Co., in Paris, whose factory was in Montargis, France, and here again I met Charles Goodyear, making his experiments, for he was ever experimenting. I may mention that Charles Goodyear here took large apartments. He set to work to furnish them with ebonite, made of vulcanized rubber, and coupled with this made a carriage of same material. The cost of all this was great; many men would not have had the pluck to make this experiment.

Another experiment was wall paper made of cotton fiber and rubber for keeping houses dry from damp walls, but it was not a success, for he couldn't make rubber stick to water. One other experiment was rubber flowers of all kinds and shades of color. These were really beautiful, and they were used sometimes by milliners for hat trimming, but for some reason they did not last long in use; perhaps the smell was against them. Goodyear had a fertile brain and used it.

On one occasion I was visiting Boston on business, and some of my friends took me to Woburn, to show me the first oven Charles Goodyear ever vulcanized rubber in. It was a small oven built of brick, very much like an old fashioned country house oven; it was, however, built in the earth. No doubt if the New England Rubber Club would look it up and set it up in some convenient place near Boston, there would be quite a pilgrimage of rubber people to visit it; it would be an object of great interest, and tell its own story, and show the world from how small a thing great enterprises have arisen. What would rubber have been to the world, if vulcanization had not been discovered? Yours truly,

LEWIS L. HYATT.
[Former President New Jersey Rubber Co.]

THE ATTENDANCE.

MEMBERS OF THE CLUB WHO WERE PRESENT.

F. H. Appleton.	J. E. Davis.	Henry C. Morse.
L. D. Apsley.	J. Frank Dunbar.	Fred L. Moses.
C. H. Arnold.	M. W. Farwell.	J. E. Odell.
C. J. Bailey.	J. W. Fellows.	Henry C. Pearson.
Robert B. Baird.	John H. Flint.	W. E. Piper.
F. D. Balderston.	George H. Forsyth.	F. W. Pitcher.
W. E. Barker.	W. H. Gleason.	W. L. Pitcher.
Charles W. Barnes.	E. D. Hathaway.	Arthur Reeve.
Theodore S. Bassett.	A. N. Hood.	Thomas G. Richards.
A. O. Bourn.	F. C. Hood.	P. L. Rider.
S. W. Bourn.	George H. Hood.	Fred L. Smith.
A. H. Brown.	F. H. Jones.	A. W. Stedman.
Frank T. Carlton.	Robert Josselyn.	J. H Stedman.
R. L. Chipman.	William J. Kelley.	William F. Stevens.
Charles A. Coe.	H. D. Klous.	F. W. Veazie.
A. L. Comstock.	R. G. Lockwood.	John F. Wheeler.
C. C. Converse.	J. H. Learned.	George P. Whitmore.
Robert Cowen.	Otto Meyer.	A. H. Yeomans.
W. A. Daggett.	Charles A. Morse, Jr.	

GUESTS OF THE CLUB.

Nelson Goodyear.	Freeman Hunt, Esq.	Robert D. Evans.
Hon. Sm'l L. Powers.	Edgar S. Hyatt.	Geo. E. B. Putnam.
Hon. Jas. J. Myers.		

GUESTS OF MEMBERS OF THE CLUB.

Capt. F. L. Alden.	Thomas A. Forsyth.	John S. Patterson.
C. M. Ammerman.	H. F. Franning.	A. M. Paul.
F. H. Appleton, Jr.	E. C. Green.	H. H Perrin.
Albert L. Brown.	Willard R. Green.	E. L. Phipps.
G. A. Cheever.	J. N. Greene, Jr.	C E Riley.
I. N. Chick.	E. N. Hill.	F. C. Rutan.
Charles F. Coburn.	W. T. Lawrence.	George C. Shirts.
G. F. Culmer.	Max Loewenthal.	Dr. Jos. C. Stedman.
C. F. Edgerton.	H. C. Mason.	A. M. Stickney.
James Bennett Forsyth.	Everett Morss.	C. E. Tingley.

A GOODYEAR MEMORIAL EXHIBIT.

ARRANGED in an exhibition case in the dining room was an interesting collection of curios which had once belonged to Charles Goodyear, or had had a bearing upon his work in rubber. The list includes the principal medals awarded to Mr. Goodyear for his early exhibits of applications of India-rubber, and also several articles made of rubber, by himself, or under his supervision, at a time when they were distinct novelties. These articles were also kindly loaned for the occasion by members of the present Goodyear family. They may be described briefly as follows:

Charles Goodyear's book on "Gum Elastic," printed on sheets of India-rubber and bound in boards of vulcanite.

The Council Medal (bronze) awarded at the Great Exhibition in London, 1851, mounted in vulcanite frame.

Grande medaille d'Honneur (gold) awarded at the Paris Exposition, 1855.

Cross of the Legion of Honor, conferred by Napoleon III in 1855.

Silver Medal, American Institute, New York, 1835, for a new discovery in India-rubber.

Silver Medal, Mechanics' Institute, New York, 1835, for new method of manipulating India-rubber.

Silver Medal, American Institute, 1836, for India-rubber drapery not liable to decomposition from exposure to the sun.

Silver Medal, Mechanics' Institute, 1836, for the application of India-rubber to printing.

Silver Medal, Franklin Institute, 1844, for gum elastic goods.

Gold Medal, American Institute, 1844, for the best sheet Rubber, shoes, India-rubber cloth, and an assortment of Harness, Buckets, etc.

Two Silver Medals, Massachusetts Charitable Mechanics' Association, 1844, "for Superior India-rubber Goods" and "for Best Specimen India-rubber Goods."

Silver Medal, Crystal Palace Exhibition, New York, 1853.

India-rubber necklace, gold mounted.

Watch and pendant, India-rubber, gold mounted.

Silver mounted India-rubber flute.

India-rubber watch case or box, brass inlaid.

Vulcanite plaque, in colors.

Two vulcanite paper knives, ornamental.

Medallion in rubber of Charles Goodyear, mounted on rubber easel.

Two medallions in rubber.

Four small frames in rubber, for pictures.

Two carved rubber brooches.

In this connection was shown a row of books, more than a dozen in number, comprising the printed history of Mr. Goodyear's work. Beginning with a copy of the work on "Gum Elastic" written by Mr. Goodyear, and giving his own story of his labors as an inventor, the collection included also the numerous legal documents which were printed in connection with his long continued patent suits. Incidentally, they contain much of the history of the early development of the rubber industry, told in the language of hundreds of witnesses, including most of the men who were contemporaries of Goodyear in rubber. These books were loaned from the office library of THE INDIA RUBBER WORLD.

THE FAMILY OF CHARLES GOODYEAR.

CHARLES GOODYEAR was survived by two sons. The eldest, Charles Goodyear, Jr., born in 1833, was enabled to render his father important assistance in his work, and, upon the death of the latter, in 1860, became the executor of his will. He also took an important part in procuring an extension of the Goodyear vulcanization patent. He was married before the death of his father, and lived until May 23, 1896, being survived by his wife, three sons, and four daughters. Mrs. Goodyear is now a resident of Flushing, Long Island. Two of the sons, Charles and Walter, are married and reside in New York, where they are engaged in business. The third, Nelson Goodyear, who studied architecture in Paris, also lives in Flushing, with his mother and sisters. A second son of Charles Goodyear, the inventor, is Professor William H. Goodyear, curator of the museum of fine arts of the Brooklyn Institute, and a writer and lecturer of note on architectural topics. Of the two brothers of Charles Goodyear, Nelson left no family. Henry B. Goodyear, who became the executor of Nelson Goodyear, and thus had charge of his hard rubber patents, was survived by several children, who live in different American cities, besides a son whose home is in Paris. It may be proper to recall, in this connection, that it was stated in a sketch of Charles Goodyear, published by Clarke Dooley in the *Popular Science Monthly* in September, 1898, that instead of dying insolvent, the great inventor left an estate which, by reason of being well managed, ultimately became invested very profitably.

GOODYEAR AND THE "HALL OF FAME."

AN institution which promises to prove of far more importance, and to possess more merit than may have occurred to the average newspaper reader, is the "Hall of Fame for Great Americans," which has been planned in connection with the New York University. Its model, to a certain extent, is the *Ruhmes-halle* built by the king of Bavaria near Munich; its purpose, in preserving the memory of distinguished personages, is suggested by the use which has been made of Westminster Abbey, in London, and the Pantheon, in Paris. The building is meant to be a worthy architectural monument. As for the rest, it is proposed to honer 100 native born Americans who have helped to make their country great, selected from all the professions and occupations—50 to be chosen now, and 5 to be added at the end of every decade until the list is complete. The selection is to be made by a committee of 100 electors, composed of men who have themselves attained distinction in various walks of life. The first balloting has taken place already, and 29 names chosen for the "Hall of Fame," under the rule admitting none for whom less than half the electors voted. There yet remain 21 places to be filled, to complete the first 50 on the list, and a ballot to fill these places will take place in 1902. When that time arrives, those names which received a certain amount of support in the recent balloting will be the first to receive consideration. In the section devoted to "Inventors and Scientists" the name of Charles Goodyear, in the opinion of many, might well merit a place, and it is not impossible it may yet be found there. In a letter by the Rev. Dr. Henry Mitchell MacCracken, chancellor of the New York University, to the editor of THE INDIA RUBBER WORLD, the following occurs:

Charles Goodyear's name was before the 100 electors and received considerable support. By the rule, the support given him this year puts him in nomination for one of the 21 panels to be filled in the year 1902. The centenary celebration [by the New England Rubber Club] will no doubt attract the attention of 100 electors who will serve two years hence.

As soon as the names are decided upon, they will be inscribed upon columns of stone provided in the "Hall of Fame." Above these panels niches will exist for busts or statues of the persons so honored. An extensive hall will be provided for use as a museum of mementoes for the distinguished persons. The expenditure on the building of the hall has already reached nearly $250,000, and its location is one of the most beautiful within the confines of New York.

SHIPPING FACILITIES TO IQUITOS.

TO THE EDITOR OF THE INDIA RUBBER WORLD: At present there exists only one company directly engaged in the carrying commerce between this rich region and Europe. It has five steamers in the service, of small tonnage and eleven feet maximum draft, which permits their navigation of our rivers at all times; although when the rivers are high—*i. e.*, from January to June—vessels of the deepest draft may enter.

This company (Booth & Co.) has no competitors; it charges enormous freight rates, the charges ordinarily exceeding the value of the cargo. It earns an immense income, with which it increases the number of steamers in their service, while from day to day it becomes more exacting; for it is not only the carrier of European products and manufactures, but also of American goods, which must first be sent to Liverpool to be reshipped in this company's steamer direct to Iquitos. To this must be added the demand for small steamers or launches for the navigation of the interior rivers to handle local commerce. So that the American merchant would find a ready means of increasing his trade, taking rubber in return.

But in order to attain the most satisfactory results it is indispensible to establish a direct steamship line between the United States and Iquitos, and which I am sure would give good results. A trial could be made by putting on one steamer increasing the number as necessary.

PERUVIAN.

Iquitos, Peru, August 16, 1900.

THE RUBBER PLANTING INTEREST.

THE OLDEST RUBBER PLANTATION.

TO THE EDITOR OF THE INDIA RUBBER WORLD: In *The Indian Forester* (Vol. XXIV, p. 160*) I presented some facts in relation to the oldest India-rubber plantation in the world, which is located on the Pamanukan-Tjiassem estate, in the Residence Krawang, in Java. At that time I wrote that the plantation came into existence in the year 1872, basing my information on personal conversation with the owner of the estate, but the opinion of the present chief overseer, Herr van Henkelom, seems to be that the plantation dates from the year 1864.

The young plants of *Ficus elastica* were obtained from the adjacent forests, by cuttings of branches, or by marcotting the uncultivated trees, an operation to which the inhabitants of Java frequently resort. The before mentioned rubber trees are especially adapted to the process of marcotting. All that is necessary is the removal of a strip of bark ¾ centimeter wide, and to bandage the wound with earth. After about fifty days roots will appear through all sides of this ball, which can then be cut off. It is advisable before planting these young plants, which are about ½ meter in height, to place them, or rather nurse them, in rich, well shaded soil for a period of about fifty days, in order to heal the cut thoroughly.

It is my opinion that the original cost of this plantation on the Tjassem estate was not very much, because the *Ficus elastica* was planted about 8½ yards apart each way, or 72 to the acre, within coffee plantations which were no longer productive, and required not much cultivation. I estimate the cost of the plantation at about $7 per acre. Altogether 72½ acres, embracing 5200 trees, were planted.

The first tapping was done in 1886, and the following figures will give the details:

YEARS.	Pounds.	Average ounces per tree.	Value.
1886	5,512	17	$2,880
1887	4,954	15	2,592
1888	1,514	4	792
1890	3,307	10	1,728
1891	6,113	18	1,858
1892	5,992	18	1,229
1895	3,197	10	1,973
1896	3,113	10	1,561
1897	6,731	21	3,648
1898	6,731	21	4,213
Total	47,164		$22,474

Tappings could not be made in every year. In thirteen years (in three of which the trees were not tapped) a total of 47,164 pounds was harvested, an average of 3628 pounds per year, or 10 ounces per tree per year. During the four years 1895-98 the average was 4943 pounds, or, 15 ounces per tree. The yield per acre, therefore, from 1886 to 1898 averages 50 pounds, and from 1895 to 1898, 68 pounds.

The figures given above, by the way, in the column headed "Value," must be understood as referring to the income to the planter after deducting all expenses, not only of harvesting the crop, but also the initial expenses and the yearly expense for care of the plantation. From the information supplied to me in regard to the prices obtained for the rubber, I should infer that the yearly expense for the last four years covered by the table had amounted to an average of $12 per acre per year. An analysis of the figures above given will show an average yearly net profit of $39.30 per acre, the figures for 1898 showing a profit per acre of $58.*

With respect to the possible yield from *Ficus elastica* it may be mentioned that Herr Mulder, in Sudimara (West Java) obtained in 1897 from three trees 48 kilograms, and 20 months later from the same trees 45 kilograms. This is respectively per tree 35⅓ pounds and 33 pounds. A. H. BERKHOUT.

Late Conservator of Java Forests.

Wageringen, Holland, October 18, 1900.

* Quoted in THE INDIA RUBBER WORLD, August 1, 1898.

TEHUANTEPEC RUBBER CULTURE CO.

ARTICLES of incorporation were filed by this company in New Jersey November 12. The company is composed of substantial business men in Toledo, Ohio, Kansas City, and other leading western cities, together with some Mexican citizens of official or commercial prominence. The company owns 5000 acres of land, a portion of the Romero Rubio estate, on the Uspanapa and Coachapa rivers, in the canton of Minatitlan, state of Vera Cruz, Mexico, besides which it controls certain concessions of value, and has acquired a large nursery of *Castilloa elastica* seedlings ready for transplanting now over one year old. The president of the company is Harry W. Bennett, identified for several years past with the Mexican Gulf Agricultural Co., owners of the Dos Rios plantations on the isthmus of Tehuantepec, which company has conducted some of the largest and most important experiments in rubber planting in Mexico thus far. W. A. Brigham, of Toledo, is vice president, and Squire Garnsey, also of Toledo, secretary and treasurer. The three gentlemen named have all been identified with the coffee trade, starting with their interest in the Woolson Spice Co., years ago. Mr. Garnsey will be in charge of the company's principal offices, at No. 35 Nassau street, New York. Mr. Bennett will reside on the plantation and manage it, with the assistance of A. B. Luther, an experienced tropical agriculturist. The company proposes to augment its working capital by the sale of bonds, protected by a mortgage on its estate, held by the Knickerbocker Trust Co. New York). A novel feature of its prospectus is that no returns to investors are promised until after ten years. It is understood that one of the directors is Porfirio Diaz, Jr., a son of the Mexican president.

YIELD OF RUBBER IN MEXICO.

R. P. PROBASCO, of Chicago, favors THE INDIA RUBBER WORLD with the results of tapping cultivated *Castilloa* rubber trees by A. B. Coate, superintendent of La Soledad Plantation, on Trinidad river, isthmus of Tehuantepec. Mr. Probasco received four specimens—

1. Weight 3 pounds 2 ounces; collected from three trees, in diameter 16, 12½, and 14 inches.

2. Weight 1 pound 2 ounces; yield of one tree, 12 inches in diameter.

3. Weight 1 pound 9 ounces; yield of one tree, 11½ inches in diameter.

4. Weight 2 pounds 4 ounces; yield of one tree, 18 inches in diameter.

Total weight, 8 pounds 1 ounce, yield of six trees, gives an average of 1 pound 5⅓ ounces per tree. None of the trees is over 8 years; some of them only 6. Rain fell while the trees were being cut, washing away some of the rubber milk, and various other unfavorable conditions existed.

THE INDIA-RUBBER INDUSTRY IN GREAT BRITAIN.

By Our Regular Correspondent.

A RECENT article in this journal drawing attention to the change that has taken place of recent years in the French rubber trade as regards competition suggests a reference to what has happened in the British trade, also. It is advisable, by way of refreshing the memory of those who sometimes skip the pages of their trade journal, to say that the point under reference is that which relates to the taking up of the rubber business generally by firms who previously limited themselves to the manufacture of one or two articles. With the larger British firms the policy has been to take up as many branches as promise to be remunerative, and instances could be cited, were it considered necessary, where such additions have been tried and dropped on proving for some reason or other to be unremunerative. The Silvertown company long have combined with their cable and electric work a general rubber business, but the manufacture of mechanical goods by their neighbors the W. T. Henley's Telegraph Works, dates back only four or five years. Whether the new departure, which was only on a modest scale compared with what the older firms in this line of business were doing has proved a success, is a matter with which we have no concern here, and indeed I am not possessed of any knowledge at all on the subject, but in the case of a neighboring concern, the late Fowler-Waring Co., it was understood that the incursion into the mechanical rubber manufacture proved anything but a success. It is possible to divine a cause for this, which may be given for what it is worth. The cable business is one that is necessarily, as regards the getting out of costs, conducted on scientific and accurate calculations, whereas the mechanical rubber trade, especially in the cheaper lines of goods, is carried out in a rather happy go lucky manner, and the mill manager never knows to a certainty from month to month what he will do with regard to his mixings; he therefore prefers to have somewhat of a free hand, and demurs against being strictly held to calculations and costs which he finds it advisable to alter. I don't know that this is very coherently written, but my point is to show that conditions suitable to one branch of the rubber trade may not be so to a new one which is being added on and about which the directors of the concern understand next to nothing. Rubber manufacturers going into the cable business is less common than the reverse movement, but we have a prominent case in Mr. Frankenburg's cable works, which are a recent addition to the waterproofing business so long carried on in Salford. It is not surprising that the bulk of the British golf balls are produced in cable works. The Silvertown, the Henley, and the Helsby telegraph companies find their golf ball departments to yield satisfactory returns. Where Gutta-percha is not used for any other purpose, the rubber firms do not seem to consider the golf ball business worth taking up. As an example of a branch of the manufacture taken up by prominent firms and dropped, I may mention the hollow ball, Continental competition having reduced the profits on this branch to the vanishing point.

CHANGES IN THE INDUSTRY.

THIS business, a combination of the engineering, textile, and rubber manufactures, is carried on in England by the English Card Clothing Co., Limited, which was formed about a year and a half ago as an amalgamation of four firms, and also by the old-established firm of Horsfall & Bickam, of Bridgwater works, Pendleton, Manchester. Referring more particularly to this firm, which, by the way, does not seem to have suffered at all owing to non-inclusion in the combine, they make card clothing of every description for cotton and woolen mills, also printers' blankets. The cards for the rotary carding machines as used in the first process of the cotton manufacture are composed of textiles surfaced with unvulcanized rubber, while those for the woolen manufacture, where the destructive influence of grease has to be allowed for, are made of a special composition into which rubber does not enter. The rubber used by this firm is invariably fine Pará, and the blocks from which the sheets are cut are prepared by a process differing considerably from that employed by the well known English manufacturers of cut sheet for general purposes. The firm claim for their method that it gives a sheet quite free from minute surface cracks, which, it is said, are apt to be present in sheet rubber otherwise prepared, but as I am not in a position to say anything on the matter from intimate knowledge, I shall let the point pass without further comment. This business necessitates the use of spreading machines, a coating of rubber varnish being given to the cloth so as to cause a firm adherence of the sheet rubber when the latter is attached to the cloth by means of a calende . The automatic machine by which the steel points are inserted and bent to the necessary angle, is one embodying the features of more than one expired patent, and there is nothing about it which is the exclusive property of the firm under notice, though with regard to the fastening of the cards upon the flats of rotary carding machines the firm have a patented clip arrangement which in point of effect is much superior to the old system of nailing. In addition to the regular card clothing business, the firm have an extensive trade in steel and iron wires for reeds as used in the textile industries and in such wires as are required in the millinery business. I have referred to this card business because, although engineering plays such a large part in it, yet it is decidedly a branch of the rubber industry. The average life of a card seems to be somewhere about twelve years, which compares well with other rubber goods, and of course, as new cotton mills are not being erected every day, repairs and renewals form a prominent part of the regular business.

CARD CLOTHING.

AT certain intervals of time—as a rule twice a year—the general postoffice advertise for sale old telegraph materials, of which copper wire and Gutta-percha form the bulk. Samples may be obtained and the different lots may be inspected on a fixed date at Gloucester road, Regent's Park, N. W. At the recent sale, in October, about 40 tons of Gutta-percha strippings were on sale, the bulk of it being of good quality. I understand that the whole of it found a ready sale. It is advertised in different lots, about two tons each, and unless there are special reasons for refusing them, the lots go to those who tender the highest, the sale being by tender and not by auction. Of course it is rather a risky business, as examination of a sample may prove deceptive as to the quality of the bulk. Gutta-percha may be so far oxidized as to be worthless for any of its applications and a purchaser would find himself in somewhat of a fix if he by lack of judgment became possessed of such material in any quantity. Now that paper insulation is superseding Gutta-percha so largely in telephone circuits, it is to be

CONDEMNED TELEGRAPH STORES.

expected that the bulk of the latter annually offered for sale by the postoffice will decrease, and it is hardly to be expected that the growth of submarine telephony to Ireland and the continent will do much to make up the expected deficiency. With regard to the destination of the old Gutta-percha, the bulk of it is obtained by the cable and golf ball firms, though gentlemen of a speculative turn of mind often buy it as an investment and dispose of it again when a favorable opportunity offers.

DIVIDENDS.

PEOPLE who read about 50 per cent. dividends being declared by certain firms are apt, if they are ignorant of the constitution of the firms, to wonder why competitive concerns go on declaring such humble dividends as 5 or 10 per cent. However, these colossal dividends are not so very wonderful after all in many cases, though of course they are an unfailing index of prosperity. Take the case of the Continental company, of Hanover. Without going into exact figures it may be said that the capital upon which the big dividend is declared is less than half the total capital, the remainder consisting of 5 per cent.—I am not quite certain as to the exact figure—debentures. An analogous case is seen in the great chemical firm of Brunner, Mond & Co. at Northwich, England, where dividends of 50 per cent. have been paid in late years, not, however, on anything like the total capital. In the case of the Harburg-Vienna Co., I have it on good authority that there is no debenture capital, and a considerable amount of the profit goes in bonuses to the staff from the directors down to the foremen, in proportional amounts.

TIRES.

THE North British Rubber Co. are just putting a third quality of tire on the market, a fact which may be taken as indicative that the demand of the public for cheapness rather than for quality has not yet subsided. The new tire is red—a color which, as a dealer remarked to me, has generally been associated with first qualities, that is if antimony and not red oxide is the coloring matter used. Other firms have their second qualities on the market, though a strict distinction is kept between the qualities, especially when the question of guarantee crops up. The prevailing practice is now to make outer covers thinner than was the case five or six years ago, as this enables the rider to get along quicker, owing to lessened friction. This change in procedure, it may be hinted, seems to be on the side of the manufacturer rather than the purchaser, unless the goods are sold by weight, which is not at all generally the case; at present, though, there is reason to suppose that an agitation for a move in this direction would receive plenty of support, and further developments may be expected.

BRIEF MENTION.

MESSRS. INGRAM & SON, of the London Rubber Works, Hackney Wick, London, are enlarging their premises preparatory to taking up the mechanical rubber business. This firm have in the past confined themselves almost entirely to surgical goods, for which they have a reputation, but it would seem that, owing to increased Continental competition, this business is not quite the thing it was. The firm complain of the common quality of their competitors' goods, and, although this sort of remark is common enough in the trade, and should be discounted to some extent, yet there is no doubt that the demand for lower priced articles has led to the general production of surgical goods at the present day of a quality not at all comparable with that prevailing a decade or two back.——The more modern but somewhat similarly named firm, the London Rubber Manufacturing Co., of Croft street, Deptford, is confining its operations mostly to vulcanite goods of certain types for which there is a demand in London. The vulcanite business is certainly not overdone in England, a great bulk of this material being imported from the continent. The use of vulcanite for electrical purposes is increasing yearly, and there is no reason why Great Britain should not supply more of her own requirements, especially in the case of such goods as accumulator cells for electric light stations and automobiles, as in these goods the fine external polish which is the pride of some of the foreign manufacturers is not required, and indeed would be deleterious rather than otherwise.——War office contracts will still continue to keep busy those firms who obtain them, as orders considerably in excess of those given out before the South African war are being given out at the present time. I understand that since the investigations of the contracts committee of the House of Commons, greater vigilance has been displayed by the officials, in order to prevent any irregularities or to give ground for complaints as to favoritism. This is of course as it should be both, in the interests of the country and of the rubber manufacturers, who will be unable to attribute their failure to obtain contracts to other than legitimate causes.

PERSONAL.

MR. GEORGE BRUNENAUX, recently works manager at Mr. Frankenburg's works, has severed his connection with this firm and will, it is understood, take a prominent part in introducing the rubber boot and shoe branch into a factory where this will be a novel feature. Mr. Brunenaux has a wide knowledge of the trade gained by employment in England, Russia, France, and Germany.——Mr. John Bailey, who has been works manager at the Silvertown works for forty-three years—in fact since the works were started—has been the recipient of a testimonial from the staff on his departure to look after the firm's interest in the London office. At the time when Mr. Bailey took over the position he has just relinquished Silvertown did not exist, the place name being derived from Mr. S. W. Silver, who started the rubber works. The firm of merchants in London who trade under the name of S. W. Silver & Co. are descendants of the founder of the rubber works, but have now no active interest in the concern which has grown to such great dimensions since the electrical business was taken up. The Grays, however, who joined the firm in the time of Mr. S. W. Silver, are still prominently connected with the management.

RUBBER DUST DUTIABLE.

AN importation of "rubber dust," being sawdust resulting from the manufacture of hard rubber combs, entered at New York by Schrader & Ehlers, was assessed by the local customs appraiser as a manufacture of India-rubber, dutiable at 30 per cent. *ad valorem*. Protest was made to the general appraisers, with the claim that the material should be admitted "as waste, all free of duty under paragraph 463 [Act of July 24, 1897]," or as "scrap fit only for remanufacture, at 10 per cent. *ad valorem* under paragraph 579." The board decided: "The protest claims that the article is free of duty as waste under paragraph 463, which paragraph imposes a duty of 10 per cent. on waste, but inasmuch as the importers have claimed the article to be waste, and have designated the proper paragraph, we construe the claim as being for 10 per cent., and accordingly sustain the protest to this extent, and reverse the decision of the collector."

SAVED BY RUBBER HEELS.—A Western Union lineman at Clinton, Mass., was at work up a telegraph pole and had just descended when it was struck by lightning. He felt thrills through his body, but sustained no injury, which he attributes to the fact that he was standing on a pair of rubber heels.

AUTOMOBILES AND AUTOMOBILE TIRES.

THE first annual exhibition of automobiles under the auspices of the Automobile Club of America, held at the Madison Square Garden in New York, November 3–10, must be set down as having been, in every respect, a very great success. Thirty-one makers of automobiles and twenty makers of accessories and parts were represented as exhibitors. The word "automobile," by the way, no longer serves to designate sufficiently the horseless vehicle; there are too many types. In addition to carriages described as "locomobiles," "steamobiles," and plain "mobiles," there were on exhibition victorias, phætons, stanhopes, surreys, cabriolettes, motorettes, voiturettes, broughams, hansoms, wagonettes, traps, brakes, victoriettes, runabouts, theater 'buses, hotel 'buses, station cabs, emergency wagons, road wagons, delivery wagons, auto cars, four ton trucks—anything, in fact, one could want in carriages, whether run by electricity, steam, or gasoline, and with as great a variety in prices as in types or styles of construction. There were also motor bicycles, tricycles, and quadricycles. Many of the exhibits included separate motors, or partially completed vehicles, in order to illustrate the working parts in detail. In respect to accessories and parts, were exhibits devoted to tires, gong bells, roller bearings, lamps, lubricants, chains, rims, engines, engine parts, batteries, air pumps, tools, leather, odometers, and what not. To facilitate the exhibition of vehicles a broad track had been constructed. The interior of the Garden was tastefully decorated, and the attendance was as large, from first to finish, as the most sanguine could have hoped for, besides which the character of the interest manifested in the exhibits indicated that it was not due to curiosity alone.

Tire exhibits, in most cases extensive and very complete were made by the following firms:

Consolidated Rubber Tire Co.....New York.
Diamond Rubber Co .....Akron, Ohio.
The B. F. Goodrich Co.....Akron, Ohio.
Goodyear Tire and Rubber Co.....Akron, Ohio.
Hartford Rubber Works Co.....Hartford, Conn.
International Automobile and Vehicle Tire Co., New York and Boston.
Metallic Rubber Tire Co.....New York.
Munger Vehicle Tire Co.....New Brunswick, N. J.
New York Belting and Packing Co., Limited.....New York.

So complete was the exhibition referred to, and so large the attendance of the public, that it seemed to many minds hardly probable that any reason would exist to take people to the Automobile Exposition which followed, in the Grand Central Palace, from November 14 to the 24th. This proved a mistaken idea, however. The show in the latter building was very extensive, including several exhibits not seen at the Garden; the show was attractive, and the attendance was good throughout. Whatever may result in the way of buying, it is evident that the public has become fascinated with the idea of riding in self-propelled—or apparently self-propelled—carriages. Much remains to be settled, however, with regard to vehicle shapes, mechanical construction, adaptation of parts, choice of motive power, etc., besides which the relative economy of various types, as compared with each other and with horse drawn vehicles, must yet be calculated.

It is quite noticeable that the tendency seems to be more and more toward the use of solid wood wheels and solid rubber tires, especially for all electric vehicles designed for commercial purposes. A very few of the vehicles exhibited are equipped with wire wheels and pneumatic tires. These pneumatic tires are, however, used on the lighter pleasure carriages; but when the weight of these becomes great, solid tires seem to be in order. The one exception noticed to this general tendency is in the heavy hansom cabs and broughams with which New Yorkers are now very familiar. These are fitted out with 4-inch pneumatics.

The descriptions which follow are not intended as a summary of the tire exhibits made at the automobile shows, but this proves a convenient opportunity for putting on record in these pages the various types of tires now being offered for use on heavy vehicles, apart from the ordinary solid rubber tires in such wide use.

TURNER ENDLESS SOLID TIRE.

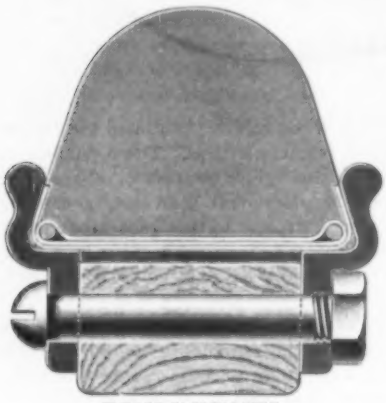
THE *raison d'etre* for the endless form of construction of the rubber part of this tire is that all trouble may be avoided that might grow out of the splicing of a solid tire fastened mechanically. Where rubber has to be compressed to make the "splice" there is always a possibility that there may be too much rubber for a given perimeter, when the wires may loosen or stretch, the rubber push away from the rim at the splice, the wires cut out, and the tire creep. In the Turner tire the perimeter is fixed absolutely by the endless wires shown in the cut, in addition to which the tire is vulcanized in a mold, which insures, provided the wheel is true, a complete fit. The sides of the tire form a continuous angle; the flanges which bolt through the wood felloe are built with a corresponding angle, and, when bolted in place, compress the tire to such an extent as to render creeping or pulling off practically impossible. The weight of the vehicle assists in the compression of the tire, which insures it against creeping. This tire is made by the Hartford Rubber Works Co. (Hartford, Conn.), who also continue to offer their single tube tires in sizes to meet any demand from the carriage and automobile trades.

WHEELER ENDLESS SOLID CLINCHER TIRE.

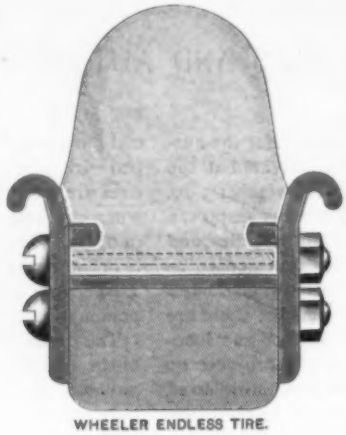
THERE are no wires to braze in applying this tire, and consequently no compression of rubber, to result in possible future trouble. Likewise there is an absence of the necessity of special machinery and expert labor in applying the tire. The only tool needed, in fact, is a wrench for bolting the steel flanges to the wheel felloe. The tire being made endless, it is not practicable to stretch it to get it within the ordinary steel channel, for which reason a new style of channel has been devised, formed by the continuous flange, on either side of the felloe, as shown in the cut. To hold the tire more securely in place, the tire section is adapted to the clincher principle. This tire is manufactured by The India Rubber Co. (Akron, Ohio), who offer also a "Wheeler Clincher" double tube carriage tire, in addition to their standard single tube tires, and their solid tires held in place by longitudinal bands.

GOODRICH CLINCHER VEHICLE TIRE.

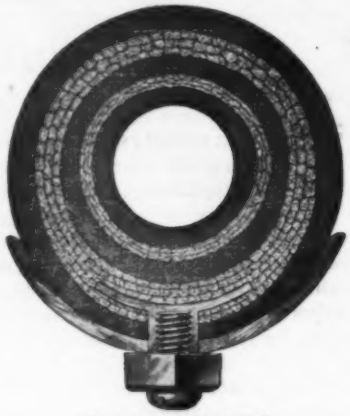
IN response to an inquiry in regard to their vehicle tire product for the present season, a representative of The B. F. Goodrich Co. (Akron, Ohio) said to THE INDIA RUBBER WORLD a short time ago: "Our standard tire will be of the clincher type, which is a tire which we are preparing to put on the market inside of the next sixty days. We shall exhibit



TURNER ENDLESS TIRE.



WHEELER ENDLESS TIRE.

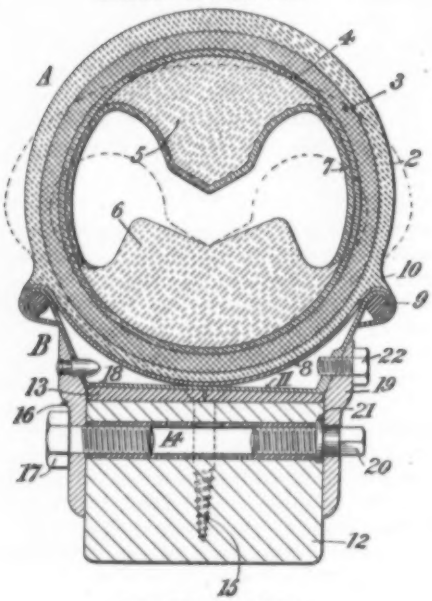


NEW YORK VEHICLE TIRE.

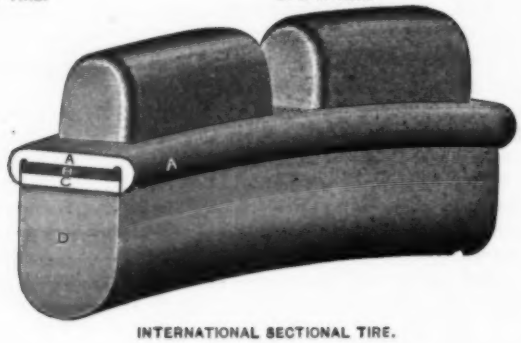
GOODRICH CLINCHER TIRE.

MORGAN & WRIGHT TIRE.

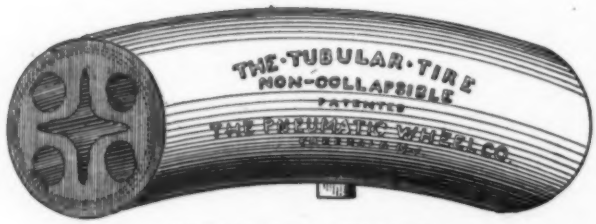
G. & J. TIRE.



MUNGER VEHICLE TIRE.



INTERNATIONAL SECTIONAL TIRE.



TUBULAR NON-COLLAPSIBLE TIRE.

them at the Carriage and Automobile exhibits. In stating that our standard tire will be a clincher, I reserve to myself a woman's privilege, that of changing my mind. If it should be demonstrated that we are on the wrong tack, this would land us in the single tube construction more strongly than the clincher." It was noticed, during the autumn carriage and automobile shows, that the Goodrich company made their new clincher tire very prominent, though exhibiting solid and single tube vehicles tires. The "Clincher" is made on the well known lines of beaded edges on the outer cover, that fit in the

edges of a channelled rim. These edges are held in place by the inflation of the inner tube, and the tire is prevented from creeping by a liner, placed between the two tubes, having threaded lugs reaching through the rim, and held in place by wing nuts. This liner also serves to hold the edges in place, and a flap in the inner wall of the casing prevents chafing the inner tube. This construction of tire has been marketed by the Goodrich company hitherto in the cycle and light carriage trades; it is a novelty as modified for the motor car trade. Specimens exhibited in New York were 4½×36 inches.

G & J AUTOMOBILE TIRE.

THE detachable pneumatic tire so widely made known under the name "G & J" have been modified to adapt them for use on carriages and automobiles, the same general lines of construction being retained. The points claimed in its behalf are its freedom from creeping or rolling from the rim, and the ease of repairing punctures. Three standards in weight and strength are offered: Style C, for vehicles weighing not over 600 pounds; Style E, for vehicles of 900 pounds or less; and Style G, intended for vehicles weighing up to 1200 pounds. This tire is, of course, stiffer in all its parts than the G & J bicycle tire, but special instructions are supplied for applying it to the rim, and for inserting the valve. Manufactured by the G & J Tire Co. (Indianapolis, Ind.)

THE NEW YORK VEHICLE TIRE.

THIS is a semi pneumatic tire, so constructed that, should a puncture occur, it will not collapse, there being sufficient power and strength to sustain the load. These features will prevent the cover from coming in contact with the rim and also prevent it from being cut. A secondary air chamber, surrounding the inner chamber, is provided to lessen the possibility of leakage through the lugs and valve stem. This tire is offered for vehicles of every type and size. In addition to the round tire shown in the accompanying cut, a special style of flat base tire, with independent flanges, is made for automobiles and other heavy vehicles with wood wheels. These flanges, extending well up the sides of the tire, give the tire a much greater carrying capacity. The flanges are cast in one solid ring. The flat band is welded and shrunk on the felloe, the same as the ordinary steel tire. The tire is fitted with a lug for every two spokes. Manufactured by the New York Belting and Packing Co., Limited (New York).

THE MUNGER VEHICLE TIRE.

THE idea of the construction in this tire, patented by Louis de F. Munger, is to produce what, under normal conditions, will be a pneumatic tire, while capable of being used indefinitely, in the event of inflation, without being damaged. In order that the tire may withstand the severe strains incident to its use on motors or other heavy vehicles, use is made of a base, or rim buffer, somewhat W-shaped in cross section, with a tread buffer of V-shape, the tongue of which can rest in the central depression of the base when the tire happens to be used deflated. The Munger tire is built up and curved in a circular form, in order that there may be no stretching or distortion of the different layers of fabric. The reason for the use of these inner buffers is that the tire, when used deflated, may not be crushed between the rim and the ground. The tire rims are of sheet steel, with beaded edges, in which are reinforcing wires. The tire is secured to the surface of the rim without the use of lugs or bolts, and has shoulders that rest on the beaded edges. The metal rim is held in place by bolting it to the facing rims that are secured to the wheel felloe. The cut which appears herewith has been reproduced from the patent office drawings. This tire is controlled by The Munger Vehicle Tire Co. (New Brunswick, N. J.), the rubber being manufactured for their use by The New Brunswick Tire Co., of the same town.

THE MORGAN & WRIGHT TIRE.

THIS is a new double tube pneumatic tire for automobiles, which has been made, thus far, in sizes up to 3 inches, and for wheels as large as 36 inches in diameter. The outer casing, including rubber and fabric, is one-half inch thick, which dimension is intended to make the tire practically puncture proof. The inner tube is also made extra heavy. The tire is fitted with tire bolts, to prevent it, by any side strains, from coming off the rim. Manufactured by Morgan & Wright (Chicago), a firm so long prominent in the cycle tire trade, and who also make solid tires, with a special band fastening.

INTERNATIONAL SECTIONAL TIRE.

THIS tire was adequately described, together with the apparatus for attaching it to wheel rims, in THE INDIA RUBBER WORLD, when it was first brought, for use on light vehicles. To adapt it for automobile use it has been necessary only to produce it in larger sizes, without any change in the principle of construction or attachment. It is manufactured by the International Automobile and Vehicle Tire Co. (New York and Boston), who offer also single tube tires for heavy motor vehicles.

NON COLLAPSIBLE TUBULAR TIRE.

THE tire here illustrated, which has been designed with a view to overcoming objections made to pneumatic tires for heavy vehicles, is not intended to be inflated, which fact renders valve stems and pumps superfluous. As will be seen, a puncture would not cause it to collapse. It is claimed to possess a desirable degree of resiliency. This tire appeared at the Carriage shows in the exhibit of the Goodyear Tire and Rubber Co. (Akron, Ohio), and is marketed by the Pneumatic Wheel Co. (Freehold, N. J.)

RUBBER TAPE AS A SURGICAL BANDAGE.

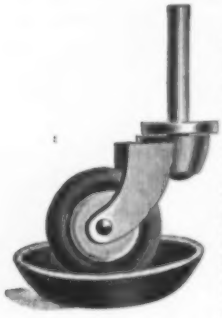
DR. E. DREIFUS writes to the Philadelphia *Medical Journal* that he has had very happy effects from the use as a bandage of the black rubber tape used by electricians for insulating joints or breaks. The discovery of its value was accidental. A young man called, whose finger had been badly lacerated, so badly that the author at first thought that amputation would be necessary. He concluded, however, that there was a chance for repair and proceeded to cleanse the part with hot water and to bathe it with hydrogen peroxide solution. Having been engaged in repairing an electrical fan, a piece of the tape referred to happened to be at hand, and it occurred to him to use it as a bandage to keep the injured parts in apposition. A complete hood was made over the finger, a snug-fitting covering applied and the patient dismissed with instruction to call again in a week, or sooner if the bandage became soiled. He did not return until the week had passed, and to the author's astonishment the wound was found to be completely healed. No suppuration had occurred, and no pain had been experienced by the patient. The author thinks that there is something in the composition of the tape that renders it aseptic. In a second case the tape was used to close a wound in the head of a child instead of stitching, the child being greatly alarmed at the prospect of the operation. The good result obtained in the first instance was again secured. The device was used in several other cases to avoid the use of sutures with like success.

NEW GOODS AND SPECIALTIES IN RUBBER.

THE RUBBER "BROWNIES."

EVERYBODY—certainly every child—knows and has enjoyed the inimitable jolly "Brownies," the introduction of which into juvenile story books is due to the genius of Palmer Cox. But now the "Brownies" can be had in rubber, the sole right to produce them in this form having been acquired by the B. F. Goodrich Co. (Akron, Ohio.) They make an ideal set of toys for children, being so varied in form and feature, realistic, and durable, and they become great playmates for little people. At the bottom of this page are views of specimens of these "Brownies," made of red rubber, the figures being six inches high and packed ten in a box. The Jolly Old Punch is designed for a rattle.

RUBBER CASTOR CUPS.



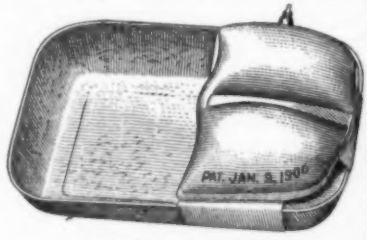
THESE cups are used to prevent metal castors on sofas, chairs, and the like from scratching tiled or polished wood floors; and also to prevent articles of furniture from moving, as the castors cannot roll when placed in these cups. The cups are made in various sizes. Size No. 1, diameter 2⅛ inches, is listed at $2 per dozen; No. 2, diameter 2⅝ inches, $2.75; packed two dozen in a box; with discount to dealers. [The Elastic Tip Co., No. 370 Atlantic avenue, Boston.]

THE "VICTOR" RUBBER GOLF TEE.

THE tee here illustrated, manufactured under a patent issued to Patrick Miller Matthew, consists of a small flexible rubber cup, accurately attached to the head of a metallic spike, which may be pressed into the turf or withdrawn with ease. It cannot be driven from its position, and offers no resistance to either the club or to the ball. The illustration will suggest fully the application of this invention. This tee has been commended by distinguished professionals and amateurs as enabling golfers to dispense with the use of the sand tee. The list price is 4 shillings per dozen, with discounts to the trade. Manufactured by The Victoria Rubber Co., Limited (Edinburgh), who control its sale in Scotland; sold elsewhere in the United Kingdom by Anderson, Anderson & Anderson, Limited, 35, St. Paul's churchyard, London; correspondence is invited with regard to its introduction in America.

TRABAUD DOUCHE AND BED PAN REST.

THE utility of the air cushion attachment for a bed pan, illustrated herewith, will commend itself both to medical men and their patients. It is comfortable, apart from relieving the patient from dread of the douche pan or bed pan, besides which it is easily applied or detached. It is particularly serviceable in removing all pressure from the spine. The cushion is applied to the covered end of the pan. The cushion is reversible, so that the valve may always be placed so as to point toward the outside of the bed. It is important to deflate the cushion before applying or removing it from the pan. The cushion, when detached from the pan, can be used to remove pressure from any part of the body. A rubber bulb is supplied for inflating the cushion. This device, which is the invention of a trained nurse of long experience, has been patented in many foreign countries as well as in the United States, and the patentee wishes to dispose of the foreign rights. [C. Trabaud, No. 9 Orchard street, Newark, N. J.]



PATENTED JANUARY 9, 1900.

GARDNER'S NASAL RESPIRATOR.

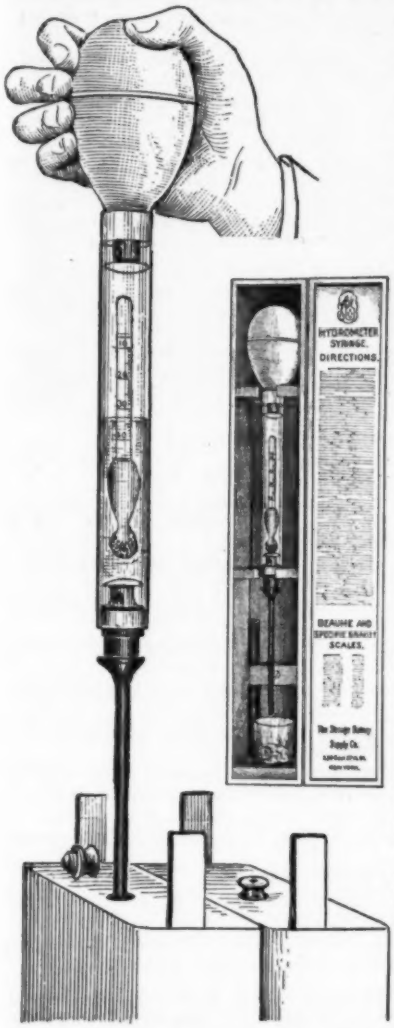
FOR use in the treatment of catarrh by inhalation—instead of douching, spraying, or flooding the air passages—a new device has been patented, consisting (1) of a tube shaped medicine receptacle, made of polished hard rubber; (2) of two soft rubber tubes which connect the receptacle with (3) hard rubber valve sections, beyond which extend (4) flexible nostril tips. The hard rubber medicine receptacle is provided with a movable cap, through the top of which is an air inlet. Absorbing cloth is placed in the receptacle and into this the medicine to be inhaled is dropped. The cap is then placed in position; the receptacle is attached by a pin hook to the clothing of the chest; and the flexible tips are inserted within the nostrils. The medicinal agent, being volatile, is thus carried to the affected membranes. At each

ROW OF RUBBER "BROWNIES."

exhalation the valve in the cap of the receptacle closes promptly, and the vitiated air from the lungs is forced through outward opening valves in the valve sections adjacent to the nostrils. The rubber parts of this device are made by a leading house in the hard and soft rubber trades, respectively. [Smith-Gardner Co., Harvard building, Forty-second street and Sixth avenue, New York.]

THE HYDROMETER SYRINGE.

ANY improvement in means for maintaining storage batteries in their best working condition naturally is welcomed. The Hydrometer Syringe, illustrated here, is an instrument designed to do away with the present tedious and unclean methods of testing the electrolyte in the cells. It also provides a convenient, cleanly method of adding, or withdrawing, fluid from the cells. To test the specific gravity of the electrolyte with this instrument, all that is necessary is to compress the bulb slightly, and to introduce the nozzle through the hole in the cover of the jar. The reading is made, the acid returned to the cell, and the same process is repeated for each cell to be tested. This instrument thus marks a great improvement over the old method of withdrawing the acid from a cell and testing in a separate vessel. An additional nozzle is furnished for filling the cells with electrolyte to their proper level. The syringe is filled from the supply vessel, the nozzle is rested on top of the plates, and, by compressing and releasing the bulb, the excess is withdrawn, and the proper amount left above the plates. The "hydrometer syringe" also answers admirably as a syringe for transferring the electrolyte from one cell to another. Its uses are not confined to storage batteries, as it is equally adapted to primary cells and all other liquids for which special hydrometers are provided. The hydrometer furnished has both the specific gravity and Baumé scale for storage battery use. Full instructions for the use of the instrument, for the preparation of the electrolyte and also the comparison of the specific gravity and Baumé scales will be found in the box. The syringe has been patented by The Storage Battery Supply Co., No. 239 East Twenty-seventh street, New York.



RECENT RUBBER PATENTS.

UNITED STATES PATENT RECORD.

ISSUED OCTOBER 2, 1900.

NO. 658,750. Pneumatic tire fastening. Joseph A. Berger, Chicago, assignor of one half to John P. Larson, same place.

658,755. Hose coupling. John J. Bowes, Jr., Pensacola, Fla.

658,974. Valve for pneumatic tires. John A. Spencer, Los Angeles, Cal.

658,970. Rubber or cushion heel for boots and shoes. Frank W. Whitcher, Boston, assignor to F. W. Whitcher & Co.

659,071. Hose coupling. Sheldon Joseph, Columbus, and William H. Clark, and William J. Clark, Salem, Ohio, assignors to the W. J. Clark Co., Salem.

ISSUED OCTOBER 9, 1900.

659,509. Rubber tire. John L. Connable, Chattanooga, Tenn.

659,557. Pneumatic tire for vehicles. Uzziel P. Smith, Chicago, assignor of one half to Thomas Kane, same place.

659,589. Pneumatic tire for wheels. Robert J. C. Mitchell, Waterfoot, England.

659,593. Rubber tooth brush. Charles W. Richards, San Francisco, Cal.

ISSUED OCTOBER 16, 1900.

659,673. Air admission and check valve for pneumatic tires. Edward W. Holt, London, England.

659,684. Dental rubber dam holder. John A. W. Lundborg, San Francisco, Cal.

659,701. Pneumatic tire. Robert P. Scott, Cadiz, Ohio.

659,730. Air extractor for pneumatic tires in construction. Augustus E. Ellinwood, Akron, Ohio, assignor to the Goodyear Tire and Rubber Co.

659,920. Rubber tire. Arthur W. Grant, Springfield, Ohio, assignor to the Consolidated Rubber Tire Co., New York.

659,996. Hose reel. George R. Young, Memphis, Tenn.

660,023. Hoof pad. Andrew D. Nichols, Everett, Mass.

660,064. Furniture pad. Celindo P. Robinson, New York.

ISSUED OCTOBER 23, 1900.

660,184. Tire. Albert E. Flatter, Greenville, Ohio.

660,225. Hose coupling. David Smith, Cleveland, Ohio.

660,427. Hoof pad. Michael Hallanan, New York.

660,445. Pneumatic tire pressure gage. Charles Lillicrap, Swansea, England.

660,452. Cushion tire for vehicles. John F. McGuire, Akron, Ohio.

660,493. Soft tread horseshoe. Enoch B. Evans, Benning, D. C.

660,536. Hoof pad retainer. William F. Waite, Palmer, Mass., assignor to Wilbur F. Young, Springfield, Mass.

ISSUED OCTOBER 30, 1900.

660,788. Soft tread horseshoe. William J. Conway, Chicago.

660,838. Rubber tire setting machine. William S. Brooks, Akron, Ohio, assignor to the Goodyear Tire and Rubber Co.

660,942. Vehicle tire. George L. Allen, Bradford, Pa.

660,976. Tire for bicycles. Nils Swanson, Olean, N. Y.

DESIGN PATENTS.

33,302. Tire. Alfred Ducasble, Paris, France. October 2.

33,338. Tire. Alfred Ducasble, Paris, France. October 9.

33,361. Nursing nipple. Philip F. Hoffman, Newburg, N. Y. October 16.

33,444. Overshoe. Frederick F. Schaffer, Naugatuck, Conn., assignor to the Goodyear's India-Rubber Glove Manufacturing Co. October 23.

TRADE MARKS.

35,167. Rubber boots and shoes. Apsley Rubber Co., Hudson, Mass. October 2.

35,168. Rubber boots. Apsley Rubber Co., Hudson, Mass. October 2.

35,233. Certain named varnish. The Cleveland Varnish Co., Cleveland, Ohio. October 9.

35,320. Gutta percha paper. Loewitz & Rohlfs, Ottensen, Germany. October 30.

ENGLISH PATENT RECORD.

APPLICATIONS.—1900.

17,378. Abraham Kronstein, Birkbeck Bank chambers, Chancery lane,

London. Manufacture of varnishes and products resembling resins and balsams. October 1.

17,386. Lazar Mladen Serban, 22, Southampton buildings, Chancery lane, London. Noiseless tire for vehicle wheels. October 2.

17,424. William Riches, 2, Rose Hill Gardens, near Tunbridge-Wells. Improved tire for bicycle and other wheels. October 2.

17,444. Alister Macnab and Wilbraham Edmunds, 9, Throgmorton avenue, London. Improvements in pneumatic tires. October 2.

17,471. Ernest Dalton Brewer, Regents Park, London. Improvements in rubber tire machines. October 2.

17,475. Carl Adolp Resen Steenstrup, 322, High Holborn, London. Improvements in the manufacture of substances similar to India-rubber. October 2.

17,482. Jonathan Aldous Mays, 75, Chancery lane, London. Improvements in elastic tires. October 2.

17,566. Mark Gilbert Knights, 4, South street, Finsbury, London. Improvements in India-rubber stamps. October 3.

17,606. Charles Arthur Prettyman and Fred Swinburne, Stanton, West Hartlepool. Valveless tires. October 4.

17,649. George Hatchett, 69, Moleland street, Birmingham. Improvements in "tire" and "rim" brakes for cycles and carriages. October 5.

17,654. William Herbert Sewell, 154, St. Vincent street, Glasgow. Improvements in vehicle tires. October 5.

17,657. Herbert Austin, Wolverhampton. Improvements in the means of securing pneumatic tires upon wheels and a novel combination of brake rim with means for attaching to rim. October 5.

17,665. Anthony Marter, Charles William Boyce Bridson, Vaughan Wilton Davies, and Arthur Lewis Browne, 57, Chancery lane, London. Improvements in the manufacture of a material suitable for golf balls and other articles. October 5.

17,691. Samuel Herbert Strong, 6, Lord street, Liverpool. Improved non-puncturable tire. October 5.

17,755. William Ward Yandell, Fernholme, Hornsey, London. Improved pneumatic tire for cycles and vehicles. October 6.

17,847. Hans Ginsbach and Gottfried Heth, 37, Essex street, Strand, London. Improvements in inflated mattresses, pillows, or other similar articles. October 8.

17,860. William Frederick Williams, 53, Chancery lane, London. Improvements in elastic tires. October 8.

17,893. Walter Cottrell Parkin and Alfred Williams, George street, Sheffield. Improvements in the production of a rubber substitute. October 9.

17,935. Carl Perdelwitz, Temple chambers, London. Elastic ferrule for sticks, umbrellas, and the like. October 9.

17,979. William Erskine, 115, St. Vincent street, Glasgow. Improvements in horseshoe pads. October 10.

18,076. William Cresswell Hopkinson, 36, Bridge avenue, Hammersmith, London. Improvements in the construction of pneumatic tires, for the prevention of side slipping and skidding and reducing the effects of puncture. October 11.

18,147. Albert Abram Wade, 169, Woodhouse street, Leeds. Improvements in pneumatic tires and fabrics and leak detectors for thr like. October 12.

18,168. Charles Reeves, Sidney Francis, St. Jermain Steadman, and Bertram Benjamin Van Praagh, 111, Hatton garden, London. Improvements in pneumatic tires. October 12.

18,177. Isaac Wheeldon, 18, Buckingham street, Strand, London. Improvements in and relating to elastic hubs for wheels. October 12.

18,194. William Phillips Thompson, 322, High Holborn, London. Improvements in protective bands for pneumatic tires. [Koch & Palm, Germany.] October 12.

18,203. Arthur Waghorne, 10, Great Turnstile, Holborn, London. Improvements in India-rubber carriage tires. October 12.

18,243. Arthur LeRoy Stevens, 62, St. Vincent street, Glasgow. Improvement in vehicle tires. (Date applied for under patents, etc., Act, 1883, sec. 103. March 14, 1900, being date of application in United States.) October 13.

18,270. Thomas Slopper, 111, Hatton garden, London. Improvements in pneumatic tires. October 13.

18,312. Charles James Abell, 1, George Drive, South Govan, Glasgow. Pocket self-inflating pneumatic life belt. October 15.

18,450. John Miles, 322, High Holborn, London. Improvements in detachable rubber heels for boots and shoes. October 16.

18,536. Ernst Zuhe, 18, Buckingham street, Strand, London. A new or improved process for producing a substitute for India-rubber and Gutta percha. October 17.

18,551. William Lewis Best and Harry Care, Lea Brook Villas, Wednesbury. Elastic or India-rubber cushioned hame chain for horse collars. October 18.

18,569. Charles Showell, 158, Edmund street, Birmingham. Improvements in brackets for stair and the like rods. October 18.

18,569. Charles Thomas Brock Sangster, 9, Exchange chambers, New street, Birmingham. Improvements in pneumatic and like tires. October 18.

18,572. Daniel Arthur Berry, 4, Corporation street, Manchester. Improvements in pads for the heels and soles of boots and shoes. October 18.

18,607. Jabez Cartwright and George Baddeley Underhill, 77, Colmore row, Birmingham. Improvements in air valves for pneumatic tires and similar purposes. October 18.

18,635. Charles G. Fawkes, 45, Southampton buildings, Chancery lane, London. Improvements relating to elastic tires for vehicles. October 18.

18,646. Isaac Kriegsfeld, 6, Bank street, Manchester. Improvements in waterproof and other garments. October 18.

18,770. Azriel Lipowsky, 22, Southampton buildings, Chancery lane, London. Improvements in means of attaching pneumatic tires to vehicle wheels. October 20.

18,772. Carl Brimmer, 6, Lord street, Liverpool. Improvements in the regeneration of old rubber and rubber waste, October 20.

18,791. Hiram Perry Mills, 23, Southampton buildings, Chancery lane, London. Process for treating bastard or pseudo gums in the manufacture of artificial rubber and Gutta-percha. October 20.

American Inventions.

18,204. Harry Harris Lake, 45, Southampton buildings, Chancery lane, London. Improvements in gymnastic or exercising devices. [John Henry Barnes, United States.] October 12.

18,461. George Croydon Marks, 18, Southampton buildings, Chancery lane, London. Improvements relating to rubber tires for vehicle wheels. [The Consolidated Rubber Tire Co., United States.] October 16.

PATENTS GRANTED.—APPLICATIONS OF 1899.

12,465. Horse collars and saddles. Reid, J., 10, Davis terrace, and Lee, 9, Davis terrace, Wells, Somersetshire. June 15.

12,538. India-Rubber and Gutta-percha. Deiss, J. G., Salon, Bouches-du-Rhone, France. June 15. (Date claimed under sec. 103 of Patents, etc., Act, 1883. February 14.)

12,723. Pneumatic tire with dust cap attachment. Dunlop, H. W. D., Viewmount, Lucan county, Dublin. June 19.

12,982–13,055. Inflating pneumatic tires. Hofmann, C., 66, Klosterstrasse, Breslau, Germany. June 22, 23.

13,146. Plastic compositions. Dorr, C., Germersheim, Germany. June 24.

13,265. India-rubber horseshoe. Barnard, G. J., and Patfield, W. T., Austin street, King's Lynn, Norfolk. June 27.

13,714. Press cylinder for making rubber tubes. Eberhardt, E., Mannheim, Badenia, Germany. July 3.

13,840. Puncture fluid. Hendrickx, I., 31, Lombard street, London. [Broquet, R.; Nivelle, and Dethier, C.; Genappe, Belgium.] July 4.

18,846. Plastic compositions. Cordner, W. J., 17, Shaftesbury avenue, London. July 4.

American Inventions.

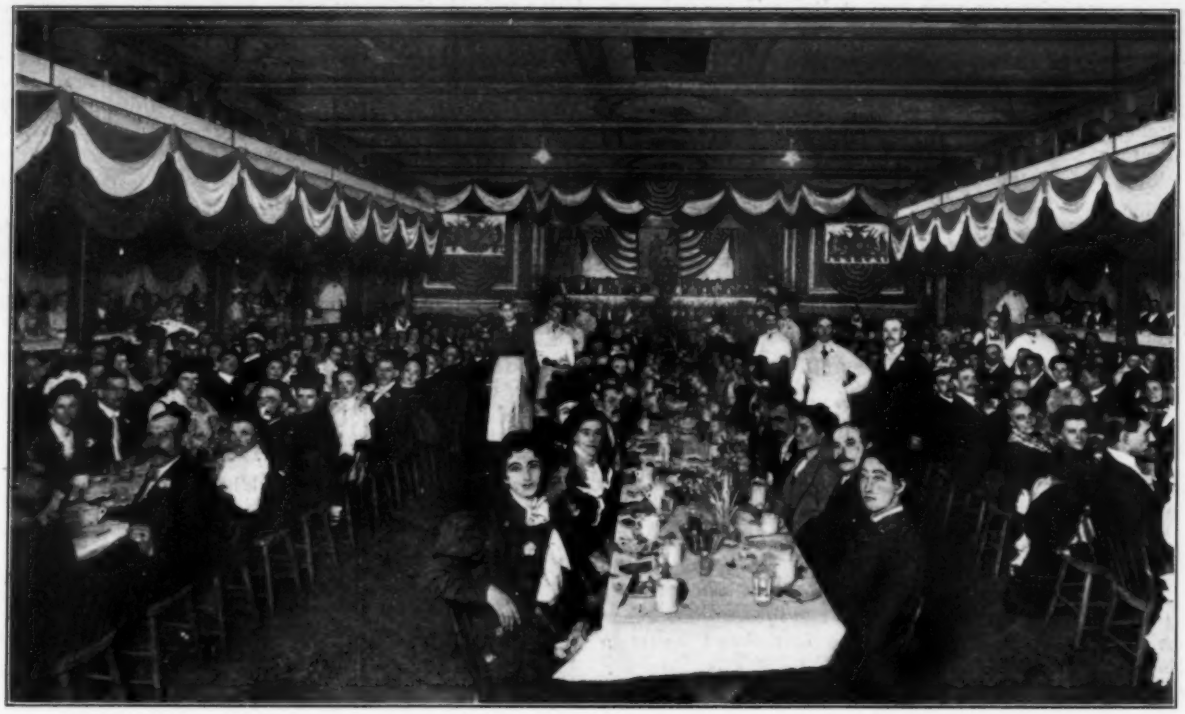
12,706. Exercising apparatus. Macmillan, A. B., No. 480 Seventh street, Brooklyn, N. Y. June 19.

13,313. India-rubber horseshoe. Mears, C. and Mears, F. W., No. 270 Broadway, and Collet, J. A., No. 435 Broadway, Brooklyn, N. Y. June 27.

13,433. Method of waterproofing. Lake, H. H., 45, Southampton buildings, Middlesex. [Gestel, J. T., No. 119 Fifth avenue, New York.] June 28.

13,527. India-rubber tire. Burrows, J. A., Akron, Ohio. June 29. (Date claimed under sec. 103 of Patents, etc., Act, 1883. February 28.)

A WEALTHY person who wishes his name to remain a secret has placed at the disposal of the German Kolonial Wirtschaftliches Komitee 3000 marks to be paid as a reward to him who first discovers within any German colony a Gutta-percha producing plant, growing wild in a forest, the product of which can be utilized for the insulation of submarine cables. It is requested that any such plant shall be introduced into the botanical garden of one of the German colonies.



DINNER TO THE EMPLOYES OF THE APSLEY RUBBER COMPANY.

PRESIDENT APSLEY HONORED BY HIS EMPLOYES.

THE exchange of compliments between the employés of the Apsley Rubber Co. (Hudson, Mass.) and the Hon. L. D. Apsley, which took place in the form of a grand complimentary ball given to the latter and an equally grand banquet provided by him, both on the evening of October 31, was one of the most interesting occasions that the rubber trade has ever witnessed. Certainly it was the most notable affair that the town of Hudson has ever seen, and the local newspaper in that busy town thought the occasion well worthy of an "extra" and ran its presses all night to do the occasion justice. All of the employés of the company were present at the band concert held in the Hudson town hall from 8 to 9 o'clock, and joined in the dancing from 9 to 11, then adjourned to the opera house, which had been beautifully decorated with flags, bunting, and flowers, where 650 persons sat down to a bounteous repast. As the dance program was a long one, only a few speeches were indulged in, the party returning to the town hall again, where dancing was continued until 4 A.M. An interesting feature of the occasion was the presentation to Mr. Apsley, by the employés, of a solid silver boot which had a special significance as it was a fac simile of the popular "Washstand boot" which Mr. Apsley designed and which is having a very large sale. Mr. Apsley's speech at the banquet is given herewith, and is of much interest as outlining the policy to be pursued in dealing with his large force of helpers:

EMPLOYEES, LADIES AND GENTLEMEN: To say that I value and appreciate the spirit that you have manifested in extending to me this high compliment in giving this grand ball in my honor, does not express my gratitude. I have always, and now more than ever, value and hope for the good will, respect, and confidence of all those in my employ. On another occasion similar to this I took occasion to say that I believed that to have perfect success in any business there must be a deep interest taken in it by all who are in any way connected with it, and I am sure that the more interest there is manifested in it the greater success there is sure to be, and I full well know that to have a deep interest taken in any business by the employés, their rights must be truly, honestly, and liberally remembered.

Any employer who forgets these great truths and resorts to harsh discipline, or attempts to gain an advantage over his competitor by trying to procure his labor at a less rate than is paid by the best and most liberal houses engaged in manufacturing the same line of goods, is unwise and unfair. Such a narrow mind cannot gain the best results or permanently prosper. With these truths always in mind, the one charged directly with the responsibility for the success or failure of the business, must not, however, yield to unwise counsel—counsel that if carried into effect would destroy the most successful business. Any attempt to pay a much higher rate of wages than is paid by the leading manufacturers in the same line, or any letting down in the discipline, means ultimate ruin to the business, and must not be expected or tolerated. A true regard for the interests and rights of the humblest worker on the part of the employer, should gain the confidence of the employés in the fairness, justice, and wisdom of the employer. This is the ideal condition to be sought for in any establishment, and I most earnestly wish and hope that the principles set forth in words may guide you in your conduct as employés, and dictate mine as your employer.

Let us adopt as our motto "Be not too exacting, lest we judge wrongly by some small thing." Let us at all times judge each other properly. You and I must not expect to escape criticism. No matter how honestly, faithfully, and liberally we do things, the low down, mean, narrow soul will find occasion for sneering and questioning our motives. Our duty is to pity the fool and go right on doing what we think is just and right.

I most heartily congratulate your committee upon the completeness with which they have managed this ball, and I hope that the good feeling which this has developed will continue to exist, and that only good will result from it.

The town selectmen were present, Rufus Howe making a speech in behalf of the board, touching upon the importance to the community of the rubber factory, and the popular appreciation of Mr. Apsley as a citizen and as an employer. The dinner guests were entertained also with singing by a good local quartette, in addition to some pleasing solos. To perpetuate the memory of the occasion flash light pictures of the assemblage in the banquet hall were taken. The ball room, as well as the banquet hall, had been tastefully and elaborately decorated. The dancing program was planned in the shape of a woman's storm rubber, the paper being tinted to resemble as nearly as possible the color of a rubber shoe. On the cover appeared a portrait of Mr. Apsley. The decorations of the dancing hall included a large portrait of Mr. Apsley, and there was on exhibition probably the largest rubber boot ever formed, made in the factory for the occasion.

It is regretted that more space cannot be given here to a detailed account of this notable double function. It may be added, however, that prominent men from the rubber trade in different parts of New England were present and many letters and telegrams of congratulation were received from those who were unavoidably absent. The occasion certainly impressed the observer as one in which Hon. L. D. Apsley and his beautiful wife came into such close and cordial touch with their employés and their pleasant words were so appreciated that an added loyalty and devotion are sure to accrue to the vigorous company that is to-day the largest and most important enterprise in Hudson.

INDIA-RUBBER GOODS IN COMMERCE.

AMERICAN RUBBER GOODS EXPORTS.

THE number of pairs of rubber boots and shoes exported from the United States between January 1 to September 30 was 785,614, against 395,193 pairs during the same months last year and 238,688 pairs in the same period in 1898. The figures for the present year are larger than for any year since the manufacture of rubber footwear in Europe began to restrict American exports in this line. The total exports of goods classed as "Manufactures of India-Rubber" during the first nine months of the year were as follows:

MONTHS.	Belting, Packing, and Hose.	Boots and Shoes.	All other Rubber.	TOTAL.
Jan.-June	$262,761	$198,022	$751,171	$1,211,954
July	54,965	53,503	110,456	218,924
August	42,114	98,761	139,212	280,087
September	41,764	61,613	116,700	220,077
Total	$401,604	$411,899	$1,117,539	$1,931,042
Total, 1899.	(a)	203,921	1,300,627	1,504,548
Total, 1898.	(a)	139,172	1,070,184	1,209,356

(a) Not separately reported prior to July 1, 1899.

Exports of India-rubber goods to the islands named below, for the months of July, August, and September were, in value:

ISLANDS.	Belting, Packing, and Hose.	Boots and Shoes.	All other Rubber.	TOTAL.
Cuba	$8,896	$603	$8,337	$17,836
Porto Rico	286	130	1,924	2,340
Philippines	338	669	2,648	3,655
Total	$9,520	$1,402	$12,909	$23,831

WHERE AMERICAN RUBBER GOODS GO.

EXPORTS classed as "India-rubber goods" at the New York custom house were shipped from this port during the four weeks ended October 30, in value as follows:

Great Britain	$33,871	Nova Scotia	163	Argentina	4,449
Germany	24,782	Mexico	5,074	Uruguay	11
France	4,779	Central Amer.	746	Peru	316
Belgium	2,406	Cuba	5,522	Chile	133
Holland	441	Porto Rico	689	Australia	9,988
Switzerland	404	Haiti	74	New Zealand	1,623
Austria	681	San Domingo	111	Philippines	310
Turkey	171	British W. Ind.	313	Hong Hong	382
Norway	1,422	Dutch W. Ind.	21	Japan	2,038
Sweden	467	Venezuela	490	British E. Ind.	65
Denmark	1,233	Colombia	367	British Africa	312
Italy	300	Ecuador	30		
Newfoundland	532	Brazil	898	Total	$105,614

Previous exports from New York have been;

Four weeks ending July 31	$110,391
Five weeks ending September 4	145,541
Four weeks ending October 2	94,665

Some other imports to be considered for the four weeks weeks ended October 30 are the following:

India-rubber Scrap—To London $1500; Liverpool $6839; Manchester $6910; Glasgow $2814; Havre $8164; Hamburg $6921; Genoa $3200; total $36,348.

Dress Shields—To Liverpool $719; Southampton $5965; Antwerp $1498; Hamburg $4993; Havre $1485; Genoa $618; other ports $100; total $15,178.

Clothes Wringers—To Great Britain $1541; Germany $581; Belgium $519; Holland $1569; Norway and Sweden $558; Australia $384; other countries $601; total $5753.

India-rubber Thread—To all ports $35,499.

The value of exports of reclaimed rubber during the months of January to September inclusive has been as follows:

1898.	1899.	1900.
$220,812	$324,604	$415,285

BOSTON RUBBER SHOE EXPORTS FOR OCTOBER.

	Pairs.	Value.	Value. 1899.
To England	44,178	$21,108	$14,941
To France	3,5478	13,375	....
To Scotland	6,522	3,024	....
To Belgium	5,232	1,730	....
To Miquelon	1,426	2,153	....
To Turkey	3,113	1,770	....
To Denmark	948	345	....
To Newfoundland	794	557	210
To Nova Scotia	449	858	1,240
Total	98,140	$44,920	$16,391

AMERICAN IMPORTS OF RUBBER GOODS.

THE value of the imports of India-rubber and Gutta-percha goods during the first nine months of each year has been:

	1898.	1899.	1900.
India-rubber goods	$246,658	$333,986	$432,907
Gutta-percha goods	94,116	109,386	210,576
Total Imports	$340,774	$443,372	$643,483
Reëxports	72,030	57,848	13,319
Net Imports	$268,744	$385,524	$630,164

GERMANY'S RUBBER EXPORTS TO RUSSIA.

THE increase in the Russian import duties on India-rubber and Gutta-percha goods, amounting to 10 per cent. over the old rates, is a matter of particular concern to Germany, where an earnest effort has been made to extend the sale of such

goods in Russia. The following figures are derived from the *Gummi-Zeitung*, showing the total Russian imports last year in certain classes, and the share supplied by Germany.

	Total. (Poods.)	From Germany.
Rubber and Gutta-percha goods...	16,188	11,261
Asbestos	48,416	29,722
Oil cloths.....	13,192	6,302

The pood is equal to 36 pounds, avoirdupois.

RUBBER SHOE IMPORTS INTO GERMANY.

THE latest annual report of the Harburg chamber of commerce declares that the raising of the import duties on rubber boots and shoes is becoming more and more a vital question with German manufacturers of these articles. The German industry, indeed, is said to be suffering through Russian and American competition, since the low import duty of Germany—60 marks or $14.28 per 100 kilograms—permits the overproduction of these countries to be thrown upon the German market. "On the other hand," the report continues, "owing to the very high duties on rubbers in the above named two countries, it is not possible for Germany to find a market in them. Thus Russia imposes a duty of 220 marks or $52.36 per 100 kilograms, and the United States a duty of 720 marks, or $171.36 per 100 kilograms, viz.: 60 per cent. on the actual value and 44 cents per English pound, as results from the following calculation:

100 kilograms of Rubbers represent a value of about 500 marks, of which 60 per cent. equals	300 marks.
44 cents per pound —$1 per kilogram; consequently 100 kilograms figure at $100, equal, at 4.2 marks per $1, to	420 marks.
Total duty on 100 kilograms.....	720 marks.

"The Russian import duty on these goods is four times, and the American even twelve times as high as the German. Now, although Germany's established factories are in a position to cover the whole demand by domestic labor, there are introduced into Germany, from Russia alone, 1,000,000 pairs of rubbers annually, valued at about 4,000,000 marks (=$952,000), and this large amount is lost to domestic labor and the nation's treasury. Consequently the German tariff on rubbers ought to be raised to a figure to correspond with the duties charged in the other countries."

The Harburg report evidently is based upon a misunderstanding of the United States tariff law. Rubber footwear, if imported into this country, would be subject to duty under the following section of the tariff law of July 23, 1897:

449. Manufactures of bone, chip, grass, horn, *India-rubber*, palm leaf, straw, weeds, whalebone, or of which these substances or either of them is the component material of chief value, not specially provided for in this act, 30 *per cent. ad valorem*.

There is no provision for an additional duty on the weight of the goods. An importation of rubber footwear valued at 500 marks would pay a duty equivalent to 150 marks (=$35.70), instead of 720 marks (=$171.36), as figured out above.

By the way, THE INDIA RUBBER WORLD is in possession of a list of the brands of rubber boots and shoes which have been exported to Germany during the past year—40 brands, in all—with the gross weights per case. It is impossible to state what quantities of each brand were exported, but assuming that the same numbers were exported, boots and shoes alike, the average weight would be 1.4 pounds per pair, gross. This weight by the way, is far too large, because fewer boots than shoes are exported. The average export value per pair during the fiscal year 1898-99 was 37.6 cents. In the light of these figures, the Harburg estimate would be amended to read:

100 kilograms of Rubbers represent a value of about 348 marks, of which 30 per cent. [the actual American export duty] equals...	104 marks.

This is the figure which, it appears to the American trade, is to be considered, instead of the Harburg estimate of 720 marks—which shows a very marked difference. It is somewhat higher than the German import duty, to be sure, and considerably lower than the Russian import duty on rubber footwear—even before the recent advance in the Russian tariff. But the fact is that none of these considerations have had any bearing upon the sale of American rubber goods in Germany. When American manufacturers of rubber boots and shoes have not exerted themselves particularly to gain trade in Germany or any other country, the results have been small; when they have exerted themselves, their sales have been larger. It happens that of late they have been exerting themselves more than at some times in the past.

BRITISH EXPORTS OF RUBBER GOODS.

EXPORTS for the first ten months of each year, as officially stated, have been as follows:

In 1898.	£1,091,695=$5,458,475
In 1899.	1,159,082= 5,795,410
In 1900.	1,193,559= 5,967,795

SOME WANTS OF THE RUBBER TRADE.

[139] FROM a sporting goods firm: "We wish to know where we can get made (by some one who has made it before) a device for forming old golf balls into Gutta-percha rod."

[140] A subscriber writes: "We want to know who makes a soft rubber funnel."

[141] Another manufacturer writes: "Do you know the name and address of any party who will buy cotton hose 'ends'—either with or without rubber lining?"

[142] "Will you kindly advise me where I can obtain some 'hypo-sulphite black'; also a small vulcanizer?"

[143] "I am looking for a wire covering for hose, to be applied at any time, to strengthen old hose. It is held in place by tension."

[144] "Will you kindly inform us who are the leading manufacturers of acid cured rubber goods in the United States?"

[145] From a Western jobber: "Who manufactures Hoyt's Wood Peg Chair Tips?"

[146] From a Southern jobber: "Kindly give us a list of concerns manufacturing rubber carriage cloth."

[147] From a Canadian manufacturer: "We should like to inquire if you can inform us who manufacture hose poles in 50 foot lengths?"

ANSWERS.

[138] A. ADAMSON, Akron, Ohio, sends us a circular of an automatic jar ring lathe manufactured by him.

IT appears from the Boston *Globe* that "a rubber tree four feet in diameter yields 20 gallons of sap, making 40 pounds of dried rubber." This may be repeated every Friday morning for thirteen weeks, and the product sold for $14.75 a pound—until the dreaming rubber gatherer awakes. Then he will go to work collecting rubber at the rate of from three to five pounds per tree per year, without being very particular as to the diameter of the tree.

THE United States postal department has issued an order to postmasters urging economy in the use of the rubber bands and twine issued by the government.

NEWS OF THE AMERICAN RUBBER TRADE.

CHANGE OF NAME.

THE Atlantic Rubber Co. (Providence, R. I.) with offices at No. 127 Duane street, New York, who own and control special patented machinery for tire making, and for different other kinds of rubber work, are to be reorganized, under a new name shortly to be announced, and will be capitalized at $1,000,000. The company will operate in harmony with The Rubber Machinery Co., Limited, of Manchester, England, capitalized at £100,000, and organized to control the rights under the patents of Frank N. White and Henry J. Doughty in Europe, though the two companies are distinct. There is a probability that, under the new régime, the American company will embrace representatives of some important interests in the rubber trade, which, hitherto, have not been identified with the company.

RUBBER CEMENT WORKS BURNED.

THERE was a fire early on the morning of November 19 in the building occupied by the National Cement and Rubber Manufacturing Co. (Toledo, Ohio) The loss is reported in the local newspapers at about $50,000, a considerable stock of manufactured cements, bicycles sundries, and other products of the company being destroyed, together with raw materials. The insurance is reported at $30,000. The building was rented. The company are reported to have just completed arrangements for putting on an extra force for night work, on account of the growth of their business. The stock not damaged was removed to another building, and the firm were able to resume filling orders on November 26.

RUBBER MEN AND THE AUTOMOBILE TRADE.

DURING the recent automobile shows in New York the manufacturers in attendance organized the National Association of Automobile Manufacturers, which started with twenty-four members, besides an associate membership of fourteen. It is the desire of the projectors of the new association that it shall, ultimately, embrace the whole automobile trade. The associate membership is open to manufacturers of accessories, sales agents, and trade journals. The initial list of associate members includes the Diamond Rubber Co., The Goodyear Tire and Rubber Co., The B. F. Goodrich Co., the Hartford Rubber Works Co., and the Munger Vehicle Tire Co.

GOING INTO DRUGGISTS' SUNDRIES.

A VERY large rubber manufacturing concern, who have not in the past made such goods, are now preparing to begin the production of dress shields, druggists' sundries, and stamp rubber. They are not prepared, however, to have the particulars of their new departure made public at this time.

CONSOLIDATED RUBBER TIRE CO.

THE board of directors, at a meeting in Jersey City, N. J., on November 15, declared the sixth regular quarterly dividend of 1½ per cent. on the preferred stock, payable December 1 to shareholders of record at the close of business on November 20. The company control the Kelly-Springfield tire.

LEATHER BELTING DISCOUNTS UNCHANGED.

THE Leather Belting Manufacturers' Association held its annual meeting at the Astor House, in New York, November 21. There was considerable discussion regarding changing discounts, but no action was taken. A motion was carried to omit the May meeting. The officers were reëlected: Pliny Jewell, president; E. P. Alexander, vice president; George H. Blake, secretary and treasurer.

RUBBER MEN IN THE SOUND MONEY PARADE.

THE young men of the New York office of the United States Rubber Co. took part in the great Sound Money parade in New York, in which over 100,000 men marched, on Saturday preceding the presidential election, November 3. Practically the whole office force turned out, with 51 men in line, forming three companies of sixteen each, with the following three captains: H. D. Cooke, transfer clerk; George E. Smith, of the auditing department, and George S. Miller, of the selling department. They were uniformly accoutred in long rubber coats (a very appropriate uniform considering the rainy character of the day) and with their large flags and conspicuous banners they were very much in evidence in the parade. When passing in review before Governor Roosevelt's stand, at Madison Square, they were photographed by a photographer who was after the particularly good features of the parade. The office force of the rubber jobbing house of William Morse & Co. (New York) joined the above division of the parade.

The electrical industries of New York were well represented in the Sound Money parade, the number of members of trade marching being estimated at more than 4000. The rubber end of the electrical trades was not without its share in the demonstration. The industry was represented in the committee on the reviewing stand with Governor Roosevelt by R. Eccleston Gallaher, secretary of the New York Insulated Wire Co. Among the aids to the marshal of the electrical section of the parade were George F. Porter, of the Brixey "Kerite" Co., and H. C. Adams, of the Phillips Insulated Wire Co. Among the vice presidents of the electrical section were Ira D. Henry, of the Safety Insulated Wire and Cable Co.; James W. Godfrey, of the India Rubber and Gutta Percha Insulating Co.; and H. B. Kirkland, of American Circular Loom Co. The fourth division of the electrical section was headed by the Safety Drum Corps and band and by the Safety Insulated Wire and Cable Co. Sound Money Club, 220 strong. The Bishop Gutta Percha Co. was represented by 51 men, headed by Henry A. Reed, secretary of the company.

BOSTON WOVEN HOSE AND RUBBER CO.

A SEMI-ANNUAL dividend of 3 per cent. has been declared on the preferred stock, payable December 15 to stockholders of record December 10. Transfer books will be closed from that date until December 16.

HOOD RUBBER CO.

THE capital stock of this company has been increased from $600,000 to $750,000, to enable them to take care of their increasing business. The company has been making of late some very important additions to their factory buildings.

NEW INCORPORATIONS.

PHILPOTT & BOHMER CO. (Cleveland), October 29, under Ohio laws, to manufacture rubber goods; capital, $5000. Incorporators: A. F. Bohmer, W. B. Philpott, W. N. Ramson, Anna M. Philpott, W. C. Benham.

=The Tehuantepec Rubber Culture Co., November 13, under New Jersey laws, to deal in tropical products, principally India-rubber; capital, $300,000. Incorporators: Squire Garnsey, Francis B. Kain, Herbert J. Lillie. Further details are given on another page.

=Bridgeport Tire and Specialty Co., November 20, under New Jersey laws, to manufacture patented specialties; capital, $125,000. Incorporators: Bacon Wakeman, B. F. Taylor, H.

T. Rogers. Principal office: No. 1 Montgomery street, Jersey City, N. J.

=Elastic Tread Horse Shoe Co. (Philadelphia), November 26, under West Virginia laws; capital, $1,000,000, with $1000 paid in. Incorporators: Henry E. Wallace, Jr., James S. Bryan, Howard K. Sloan, William A. Rolin, William S. Wilson, all of Philadelphia. W. A. Ohley, attorney, Charleston, W. Va. This company has been reported, erroneously, in certain newspapers as incorporated to "manufacture and sell elastic thread."

=Krenzel Manufacturing Co. (New York), November 12, under laws of New York state, to manufacture rubber stamps; capital, $2500. Directors: Alfred Huntlinger, Hugo Krenzel, and Louise Krenzel, all of Brooklyn.

TRADE NEWS NOTES.

THE newspapers of Buffalo, N. Y., record an effort to organize a company for establishment of a mechanical rubber goods factory in that city. George F. Frazier, of Newark, N. J., is mentioned in connection with the matter.

=The Canfield Rubber Co. (Bridgeport, Conn.) obtained a silver medal for its display of dress shields at the Paris Exposition.

=Title to a tract of land in South Boston, numbered 381 to 387 East Eighth street, and embracing 12,000 square feet, including the buildings thereon, has been taken by the newly incorporated Alfred Hale Rubber Co. The property is assessed at $12,000.

=The business of the Eugene F. Phillips Electric Works, at Montreal, Quebec, has so largely increased that the manufacturing capacity of its plant has become altogether inadequate, and arrangements are being made to enlarge the factory. For many months past the works of this concern have been operated day and night.

=The Oklahoma Duck and Rubber Co., who entered the wholesale and retail canvas and rubber clothing business at Oklahoma City, Okla., early in the year, are reported to have been exceedingly successful. Recently they have removed into a larger store—No. 16 Main street.

=Mr. John H. Williamson, after a connection of eighteen years with the Manufacturers' Advertising Bureau (New York), during which time he has become known to many members of the rubber trade, has made a change of field, going with the Viennot advertising agency of Philadelphia.

=The employés of the Manhattan Rubber Manufacturing Co. at Passaic, New Jersey, have organized a benevolent association, the members of which are assessed 25 cents a month for a sick benefit fund.

=A. C. Woodward, it is reported, will build a considerable addition to his elastic goring and narrow web factory at North Abington, Mass.

=Probably the only acetyline gas plant in a rubber factory is one that has been installed in the plant of the Fairfield Rubber Co. (Fairfield, Conn.) It is of the type manufactured by the Columbia Acetyline Gas Co,, and is in every way satisfac-

=A new corporation, chartered in West Virginia November 15, is Flint, Eddy & Co., Limited, with $500,000 capital, to trade with South America. Wallace B. Flint, No. 30 Broad street, New York, is president.

=The Diamond Rubber Co. (Akron, Ohio) are mentioned as having supplied 375 tons of rubber vehicle tires during 1897 and 1898 to the American Rubber Tire Co. and the Firestone Rubber Tire Co. These concerns have since become part of the Consolidated Rubber Tire Co., whose purchases of tires from the Diamond Rubber Co. during 1899 and 1900 amounted to 250 tons.

=The India Rubber Co. (Akron, Ohio) are reported as about to increase their working force to 350.

=The results of using poor packing and gaskets and the advantages of using "Rainbow" packing and "Eclipse" gaskets are well illustrated in a large folder being distributed in the trade by the Peerless Rubber Manufacturing Co. (New York.) The facts set forth and the testimonials given ought to be of deep interest to every engineer.

=Kellogg, Johnson & Co., wholesale dealers in shoes and rubbers, St. Paul, Minn., are handling goods manufactured by the Concord Rubber Co. (Boston.)

=The Kokomo Rubber Co. (Kokomo, Ind.) have completed an important addition to the north side of their main building and had a large water cistern constructed.

=Two employés of the Edgeworth factory of the Boston Rubber Shoe Co. were arrested recently on suspicion of having systematically robbed the storehouse, and a search of their homes brought to light several hundred dollars' worth of stolen footwear.

=The gas plant of the American Hard Rubber Co. at College Point, L. I., which long furnished gas to the village as well as for the factory, has been sold to the Queens County Gas and Electric Light Co., who intend enlarging the plant.

=Ground was broken November 8 for the foundation of an addition to the factory of the Goodyear Tire and Rubber Co. (Akron, Ohio) and also an extensive office structure. The contract for the building work, not including the foundation, has been awarded to the Hankey Lumber Co.

=Automobiles are beginning to appear in the already greatly varied lists of American exports. During October the exports from New York embraced $22,580 worth of the new vehicles for Mexico; $4600 for London; and $900 for British Africa.

=A set of good blotting pads sent out to the Boston Belting Co.'s customers last week is well calculated to keep before the rubber man at his desk a continual reminder of the class of goods made by this company.

=George Watkinson & Co. (Philadelphia) expect this month to break ground for a two story brick addition to their rubber shoe factory, 98 × 80 feet.

=News was received at San Francisco November 2 that the United States government cable built by W. R. Brixey (New York) had been laid between St. Michael and Nome, Alaska, and that the first message was sent over it on October 20.

INDIVIDUAL MENTION.

MR. JOHN JAY WATSON, Jr., treasurer of the Joseph Banigan Rubber Co., and Miss Eliza Jane Ralph were married in the Central Congregational church at Providence, R. I., on the evening of November 14. After their wedding tour in the South, they will reside in a cottage recently built by Mr. Watson in Providence. In addition to his connection with the rubber business, Mr. Watson represents the town of Jamestown in the Rhode Island legislature and is a member of the state board of charities and corrections.

="How Business Will be Won in the Twentieth Century" is the title of an article by Mr. Charles R. Flint, in *The Saturday Evening Post* (Philadelphia) in a recent issue. He urges the importance of young men becoming trained as specialists in business, for the reason that under the readjustment of business "there is no place for the all around man." He continues: "My own concern is looking for half a dozen specialists to-day, rubber men, lumber men, etc. We would cheerfully pay them $5000 a year, and even more cheerfully $15,000, for a $15,000 man is a great deal more valuable to his concern than the $5000

man. But he has got to be a $15,000 man. Naturally, he is not plentiful."

=John J. Banigan lately transferred his voting residence from Providence to Westerly, Rhode Island, which becomes a matter of concern to the tax assessors of the city of Providence, since it removes from their jurisdiction a certain proportion of the personal property of the Joseph Banigan estate. tory.

=Mr. Henry P. Moorhouse, of the rubber goods trade in Paris, sailed from New York on November 27, on his return from a visit of a few weeks in the States.

=Mr. Charles R. Flint entertained a number of guests at dinner at his home in New York on the evening of November 6, who were served with the returns of the presidential election brought into the house by special wires. A similar dinner was given by Mr. Flint at the first election of President McKinley.

RICHARD H. PEASE.

ONCE with the Goodyear Rubber Co., always with it, seems to be rule in practice with this company, if not its motto. Herewith is the portrait of a member of the organization, whose connection with it covers thirty-four years. Richard H. Pease is a native of New York state, having been born at Albany July 13, 1848. At the age of 18 he removed to New York city, going into the store of the Rubber Clothing Co., composed of Frederick M. Shepard and the late Joseph A. Minott, then doing business at Leonard street and Broadway. In May, 1869, Mr. Pease arrived in San Francisco to take charge of the company's interests on the Pacific coast, and there he has remained. In 1872, when the name Goodyear Rubber Co. was adopted, the Pacific coast business was organized into a separate corporation, also under the name Goodyear Rubber Co., of which Mr. Pease was elected secretary. In 1878 he was made manager, and continued in that position until 1893, when he was elected vice president of the corporation, and was appointed Pacific coast selling agent for the United States Rubber Co. In that year the Goodyear Rubber Co. opened their branch store in Portland, Oregon. In the spring of 1900 Mr. Pease was elected president of the Goodyear Rubber Co. of California and Oregon. Frederick M. Shepard, Jr., is treasurer, and C. F. Runyon secretary. The company of which Mr. Pease is the head are now exclusive agents on the coast for The United States Rubber Co., The American Hard Rubber Co., The New York Rubber Co., The Seamless Rubber Co., The Eureka Fire Hose Co., and The Fire Extinguisher Manufacturing Co. (Chicago.) In addition the company have, of course, the exclusive representation of the Goodyear Rubber Co.'s factories at Middletown, Conn., and Lambertville, N. J.

RICHARD H. PEASE.

TRADING IN RUBBER STOCKS.

FOLLOWING the presidential election last month the trading in stocks generally became very active, the volume of transactions breaking all records. There was at first a general improvement in prices. Herewith is given a record of the trading in United States Rubber, day by day, during the greater part of November, and also, for purposes of comparison, the figures for one week each in August, September, and October:

LISTED ON THE NEW YORK STOCK EXCHANGE.

236,600 shares Common= $23,660,000.
235,250 shares Preferred= 23,525,000.

DATES.	COMMON.			PREFERRED.		
	Sales.	High.	Low.	Sales.	High	Low.
August 9-14.....	7,340	30	27½	300	94½	94
September 13-18...	11,000	30¾	27½	176	93	93
October 6-12.....	2,530	29¾	28⅞	330	95½	94½
November 1.....	570	31⅛	31	140	95	95
November 2.....	1,400	31	30⅛	.....	.....	.....
November 3.....	545	31¾	31	.....	.....	.....
November 5.....	2,369	33	31½	200	95½	95½
November 7.....	5,650	33⅞	32½	700	95½	95½
November 8.....	4,300	33½	32⅞	1,190	95⅞	95¾
November 9.....	4,740	36	32½	1,010	95¾	95
November 10.....	5,700	37⅜	35½	1,513	95½	95
November 12.....	14,200	39⅞	37	1,800	99⅞	95⅞
November 13.....	10,050	39	36½	1,500	99	96
November 14.....	5,400	37¾	35¾	1,500	95⅛	94⅞
November 15.....	2,500	36½	36	1,200	95½	95
November 16.....	3,500	37¼	36¼	800	96½	95½
November 17.....	1,500	37¼	36¾	400	96½	95½
November 19.....	2,500	37⅛	36¼	100	95½	95⅛
November 20.....	3,400	36¼	35	900	95½	94¾
November 21.....	2,600	35½	35	600	95	94¾
November 22.....	3,100	34¾	33½	1,100	94½	93¼
November 23.....	12,400	33½	29¾	2,000	93¼	88
November 24.....	9,900	30½	28¼	1,400	90⅛	87

The following table illustrates the range of prices on the New York Stock Exchange from the beginning of the United States Rubber Co.:

YEARS.	COMMON.		PREFERRED.	
	High.	Low.	High.	Low.
1893	60⅜	17	99½	50
1894	45⅛	33	99¼	79¾
1895	41	38½	94⅜	93½
1896	29	14⅛	89	65
1897	25¼	10	76½	59
1898	48½	13¾	113	60
1899	54⅞	37⅞	122	99¼

RANGE OF PRICES THIS YEAR.

Common—Highest, 44, January 2; Lowest, 21, July 6.
Preferred—Highest, 104½, January 3; Lowest, 90, February 27.

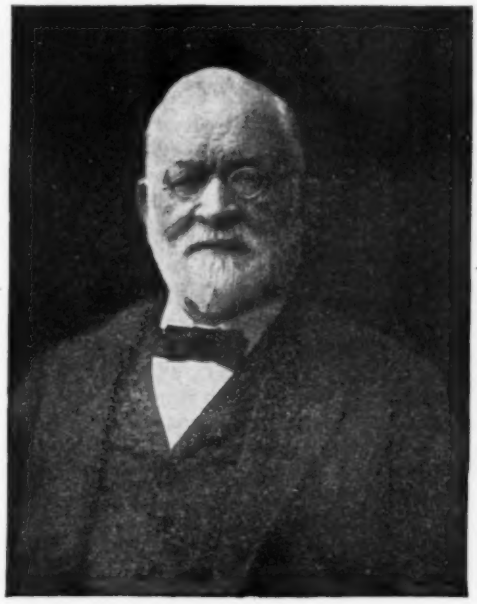
Frederick R. Tibbitts, a Boston broker, advised his customers recently: "Rubber has had a substantial advance, as we predicted, and it ought to have a reaction soon. We believe it will pay you to take your profits on any further slight advance and repurchase upon a recession, or transfer your holdings to"—and here followed a list of railway shares.

EDWIN L. WAGONER, brother of H. H. Wagoner, president of the Monarch Rubber Co., died at his home in St. Louis, October 25, after a brief illness, at the age of 30. He was connected with the Monarch company and took an active interest in politics, having been secretary of the St. Louis Sound Money Club at the time of his death.

THE Cravenette rain coat for gentlemen, cut according to the latest fashion, seems to be generally worn. An observer in the rubber clothing trade who watched the recent Sound Money Parade in New York was surprised to see how many of the paraders wore this type of coat, and this is but one of the many uses to which the Cravenette rain cloths are put to-day.

DEATH OF A VETERAN RUBBER SUPERINTENDENT.

GEORGE WOFFENDEN, who died at Passaic, New Jersey, November 10, was born in Pine Grove, Dutchess county, New York, November 26, 1828. He was the son of Richard and Mary Craven Woffenden, who had come to the United States a year or two before. When he was two years old his parents returned to England. There he learned the boot and shoemaker's trade, in which business he was engaged in Oldham, Lancashire. On December 13, 1852, he married Sarah, the daughter of James and Ann Conlong, of Rochdale, England. Business being poor in October of the following year, he left England and, after a stormy voyage in a sailing vessel which lasted thirty-six days, he landed in New York, and went to Newtown, Connecticut, arriving there on December 4, 1854. He worked at his trade for two weeks, but, not liking the business, he obtained employment with the Judson Rubber Co. and commenced his labors January 1, 1855—he being the thirteenth man hired. Mr. Humphreys was the superintendent. The Judson Rubber Co. was afterwards bought by Messrs. John H. Cheever and Henry F. Durant, who organized the New York Belting and Packing Co., who still manufacture in Newtown, on the site of the old original factory. In September, 1856, the factory was burned and for a few months he was in New York, where the New York Belting and Packing Co. hired a factory while rebuilding the Newtown works. On Monday, December 4, 1882, he left Newtown for Passaic, New Jersey, where the New York Belting and Packing Co. had started a factory, of which he became the superintendent.



GEORGE WOFFENDEN.

In the summer of 1893, Mr. Woffenden left the employ of the Belting and Packing Company, and became one of the original stockholders and organizers of The Manhattan Rubber Manufacturing Co., who built their factory at Passaic in the fall of 1893, and Mr. Woffenden was their superintendent up to November 10, 1899, when he resigned his position on account of advancing years and failing health. His services were so much appreciated by the company, that they requested him to remain as retired superintendent, and he still devoted several hours every day to business up to the time of his death, on November 10 last. The immediate cause was a stroke of paralysis. At the time of his death Mr. Woffenden had been actively engaged in the mechanical rubber manufacturing business since 1854, or forty-six years.

All through his long manufacturing career Mr. Woffenden was a very determined, hard worker, and was especially persevering in anything he undertook. He was the man who first discovered the method of making a smooth surface on rubber belts; way back in the fifties, when rubber belts were wrapped in cloth as common packing is now done. While trying different substances to get a smooth surface on the belts, he one day tried a piece of tin foil from some tobacco that he had, and when the belt came out of the heat, there was a smooth surface where the tin foil was, and this led to rolling belts in tin, which was so largely done so many years ago, and which was later on followed by the hydraulic press for getting a smooth surface. Mr. Woffenden was also the inventor of the molded corrugated treads or mats, which have been and are still very largely used.

Mr. Woffenden was most highly esteemed by all his associates in business, and, moreover, was very highly thought of by all the workmen and employés under him, and it is very unusual to see such an amount of feeling displayed by factory workmen as was universally shown by the men under him when they heard the news of his death. The Masonic ritual for the dead was read at the late residence of the deceased on Sunday. The funeral was held in St. John's church at Sandy Hook, on the morning of November 12, the Rev. O. O. Wright officiating The remains were then followed to the Berkshire cemetery by a procession of old time friends.

Mr. Woffenden is survived by a daughter, Miss Mary Woffenden, his wife having died some twenty years ago.

At a meeting of the employés of the Manhattan Rubber Manufacturing Co., at Passaic, on November 12 these resolutions were adopted:

It is with a sense of personal bereavement that we, the employés of the Manhattan Manufacturing Rubber Co., have learned of the death of Mr. George Woffenden.

During his many years of connection with us as superintendent we looked upon him as a friend, rather than an employer.

While always firm in his demands and positive in his ideas, he was also at the same time always kind and considerate.

A friend, a counsellor, and a good man, he merited the respect and confidence of all his employés, and we feel in his taking away that we each have suffered an individual loss.

To his esteemed daughter, we tender our hearty sympathy and to all those who knew him we gladly testify to his many sterling qualities,

CHARLES H. SHAW, JACOB BROADFIELD, JOHN DERNOL, Committee.

* * *

SAMUEL K. WILSON, the largest manufacturer in Trenton, N. J., died November 26, aged 81 years. He had been ill for several weeks. He was the owner of two large woollen mills, a principal owner of the Trenton Watch Co., the Trenton Lamp Co. and the Monument Co., besides holding large interests in other business concerns. Several years ago Mr. Wilson, to protect certain of his interests, acquired the controlling ownership of the Globe Rubber Co., which he retained until last year, when it became reorganized as part of The United and Globe Rubber Manufacturing Cos.

IN REGARD TO A NEW TIRE VALVE.

THE first point to be made with reference to the Pickett Two Part Pneumatic Tire Valve, of which some description has been given already in THE INDIA RUBBER WORLD, is with regard to its efficiency. It may safely be asserted to be the only tire valve yet brought forward that actually is air tight, or, at least, the only one that will remain air tight. That is, this valve, no matter how long in use, will not leak. Where valves have relied for their air holding qualities upon a combination of rubber, leaks have been a common occurrence, resulting in complaints which the bicycle trade and the tire manufacturers have had to face. Either the rubber in the usual style of valve would "bloom" in the interior of the valve, where it could not be reached and cleaned, or the metal would corrode on account of dampness—something impossible to remedy, leaving nothing to be done short of tearing out the valve, and replacing it, at a cost of 50 to 75 cents to the bicycle owner.

In this new tire, rubber is fitted to rubber, without any foreign substance whatever. The two parts of the tire being made of rubber, they fit together with a tightness not before seen in any valve. If, by any chance, the rubber should "bloom," a cloth saturated with naphtha or ether like substance can be inserted, and the entire seating surface of the valve cleaned off. The same is true if dust or other foreign matters should creep in.

The cheapness of this valve is also to be considered. It is manufactured in molds of simple construction, without any hand labor, several hundred valves at each run, and the entire cost of manufacture is not as great as the cost of manufacture of the rubber shoe now used as a necessary adjunct of the old fashioned metal valve. This new valve also contains less material than the aforesaid rubber shoe. The result is that there may be practically a saving of the entire cost of the old fashioned metal valve—an important item for concerns ordering in large quantities.

A third point, and one which is unique, overcomes an objection which no other valve has been able satisfactorily to overcome. This new valve, being placed on the side of the tire, does away with the necessity of cutting a hole through the wooden rim. Bicycle manufacturers know too well how many rims are returned to them annually, broken at the point where the hole was bored through to admit the ordinary valve stem. By the use of the new valve, it would seem as though wood rims could be made much smaller and lighter in future. The rim, like all other things, is only as strong as its weakest point, and, as the hole for the old fashioned valve cut away about a third of the width of the rim, it is easy to figure how much excess weight and size had to be allowed in order that a third of the wood might be cut away, and yet sufficient strength remain at the point where the hole was made. Incidentally, the fact that the valve does not come through the rim is of the most vital importance when one considers the question of creeping tires. Formerly a creeping tire has always meant a torn valve, but this valve is just as effective if the tire is not cemented to the rim at all. The fact that the creeping of a tire does no harm so far as this valve is concerned, will be a matter of importance to the automobile trade, for the tires used on these machines, even after the utmost precautions, are still found to creep more or less.

The Pickett valve is placed in the side of the tire just above the wheel rim, and in plain sight, easily accessible for inflation The prominent position the valve occupies avoids the difficulty of operating a pump through the spokes of a wheel. An item of considerable importance to bicycle makers is the question of weight; and every effort is made along this line to eliminate surplus material and lighten the machine. By substituting the two part rubber valve in place of metal ones, quite a considerable reduction in the weight of tires is made, and with the further result that we have a wheel that is *perfectly balanced.*

A further advantage that this valve embodies is in the matter of inflating the tire. On a hot day and with a dusty road it has always been a great personal inconvenience to the rider to get down, unscrew a dust cap, and screw on a pump, and after he has finished inflating the tire, to unscrew the pump and screw on the dust cap again in case, in the meantime, he had not lost the latter small article. There is no dust cap to lose in this new all-rubber valve. All that is necessary is merely, without manipulating any screw threads, to insert a small pump nipple which, being inserted, remains of its own accord, and after the tire is inflated, pull out the nipple again, when the small rubber button flies back into place of its own accord.

PRICES OF LINSEED OIL.

THE recent advance in prices of linseed oil—from 61 @ 64 cents a gallon in September to 75 cents early in November—was ascribed to a reported shortage in the supply of flaxseed. The original estimates of this year's crop was stated recently to have been reduced about 28 per cent., though it is still too early to ascertain what the production really has been. It may be found, however, that the prices have been influenced to a degree by the American Linseed Co., who largely control the production in the United States. At a meeting of the directors in New York on November 15, the quarterly dividend of 1¾ per cent. was passed, for the reason, officially stated, that the company's funds were tied up in the purchase of flaxseed. On the same day a reduction was announced in the price of city oil to 67 cents a gallon and in western oil to 65. The previous price for both was 75 cents. The independent producers are said to have been the chief gainers by the late advance, as they placed heavy contracts around 68 cents, while the American Linseed Co. are said to have sold very little at 75 cents.

The oilcloth and linoleum manufacturers would have been affected very seriously by an advance in prices of the oil, their contracts for the supply of goods having been based upon former prices of raw material. The India-rubber industry would also feel the effect of an advance, since linseed oil is used to a certain extent in rubber compounds, especially for waterproofing; also in rubber varnishes, to a certain extent in molded goods, and quite largely in hard rubber work. It is used also to an important extent as the basis of vulcanized oil substitutes.

A Chicago despatch of November 16, says that flaxseed declined on the news of the reduction of prices of oil. Flaxseed for May delivery fell 7 cents per bushel, from $1.74, and cash prices 5 cents from $1.75. "Conservative traders, although admitting that this season's crop is a short one, have come to regard prices for flaxseed as being inflated." A shipment of 33,825 bushels of flaxseed for Hull, England, at the end of October, was invoiced at the New York custom house at $1.60 per bushel. The subsequent rise in the price of seed has been attributed to the efforts of the American Linseed Co. to corner the market.

ONE recent shipment of rubber footwear from New York included 3100 pairs of shoes for Turkey, 5900 pairs for France and 15,000 pairs for England; also 852 pairs of boots.

THE BRITISH PACIFIC CABLE.

AT the half yearly ordinary general meeting of the Eastern Extension, Australasia, and China Telegraph Co., Limited, in London, on November 7, the chairman, Sir John Wolfe Barry, K. C. B., said:

After the many statements that have recently appeared in the newspapers respecting the all-British Pacific cable, they would no doubt expect him to make a few remarks on the subject. The latest important development was the public invitation for tenders, which had to be sent in not later than August 14 last; and, although the result had not yet been officially announced on this side, the premier of New South Wales had informed the parliament of that colony that the imperial government had recommended the acceptance of the Telegraph Construction and Maintenance Co.'s tender—amounting, with cost of stations, apparatus, maintenance ship, etc., to nearly £2,000,000. This was for a single line of cables, and included only one maintenance ship. A bill had accordingly been passed through the New South Wales parliament, authorizing the government to bear their share of the proposed expenditure. They understood that a similar bill would have to be passed by the Victorian parliament before the tender can be accepted; and, as the new Victorian parliament was expected to meet next week, we assume that in a very short time the Pacific Cable committee would be in a position to conclude a contract for the manufacture and laying of the cable. In any case, however, two years at least must elapse before the cable could be opened for traffic; and, with its enormously long stretch between Vancouver and the Fanning Island (3671 nautical miles), the cable would necessarily be a very slow one. Consequently, with their vast network of cables, and the additional facilities which the new Cape-Australian cable could afford, they did not fear the result of the threatened competition. As regards the tariffs, they had already arranged to reduce—on a standard revenue basis—down to 2*s.* 6*d.* a word, or 6*d.* below the minimum tariff which they understand the Pacific cable propose to accept.

IMPORTS OF RUBBER SCRAP.

THE figures which follow, showing the quantity and invoice value of imports of rubber scrap at New York for a period of twelve months, have been obtained from the customs officials. The last column, showing the average import value per pound, is based upon the custom house figures:

MONTHS.	Pounds.	Value.	Average.
November, 1899	1,077,613	$ 65,989	6.12 cents.
December	1,111,080	88,566	7.97 "
January, 1900	1,404,689	98,960	7.03 "
February	986,649	76,778	7.78 "
March	1,331,205	78,396	5.41 "
April	878,478	60,776	6.90 "
May	918,536	54,179	5.90 "
June	1,240,305	76,203	6.14 "
July	991,279	61,640	6.20 "
August	1,392,546	86,713	6.25 "
September	1,626,512	109,038	6.70 "
October	1,469,928	90,870	6.18 "
Total, 12 months	14,428,820	$948,108	6.57 cents.

A LARGE SPECIMEN OF RUBBER.

AT the recent carriage and automobile shows in New York, some of the rubber tire companies making exhibits displayed specimens of crude rubber. The most prominent of these was in the exhibit of the Hartford Rubber Works Co., consisting of a single piece of fine Upriver Pará, weighing 1120 pounds. Its longest dimension was 4 feet 5 inches; measured at right angles to this, the mass measured 3 feet 5 inches. Its circumference was 9 feet 4 inches. This proved quite a novelty to the visiting carriage manufacturers, many of whom are not yet familiar with rubber in the crude form. The rubber specimen referred to had been obtained from the Crude Rubber Co. (New York.)

THE FIRST "RUBBER WEATHER."

NOVEMBER has made a good beginning this year, in portions of the United States, in the way of weather which has been most welcome to the rubber shoe trade. The record to date follows:

November 9.—Snow fell on the night of November 9 in northern and eastern Connecticut, on the border between Connecticut, and in the Adirondack region in the latter state. Trains were delayed in many places. Eleven inches fell at Norfolk, Conn. The snowfall was the heaviest known, so early in the season, in the history of the Mohawk valley. Amsterdam, N. Y., reported snowdrifts 6 feet deep.

November 15.—Snow was general in the Dakotas and Montana. Street traffic was suspended at the end of the day in Deadwood, Lead City, and Sioux Falls, S. D., and trains were delayed throughout that region. Wisconsin also experienced the storm, a "blizzard" being reported from La Crosse, Prairie du Chien, and Milwaukee. Chicago had 2 inches of snow. The storm was heavy in the lower lake region, trains being delayed seriously at Cleveland, Ohio. Traffic was stalled all day at Buffalo, N. Y., with snow 10 to 18 inches along the Lake Shore road. At Watertown, N. Y., the snow reached a depth of 3 feet on the level, with drifts from 6 to 10 feet in the business quarter. The storm was the heaviest for twenty-four years in Chautauqua county. Syracuse had an inch of snow.

RUBBER NOTES FROM ABROAD.

THE Vereinigte Berlin-Frankfurter Gummiwaaren-Fabriken have become so pressed with orders that an immediate enlargement of their factory capacity is imperatively necessary. Their premises in Berlin affording no more space for the erection of new buildings, new factory buildings probably will be erected at Gelnhausen, where an extensive new plant has already risen, Phœnix-like, out of the destruction caused by the unfortunate fire of last year.

=To judge by the state of their business since the beginning of the year, the Leipziger Gummiwaaren-Fabriken—Julius Marx, Heine & Co. will close 1900 with a very satisfactory financial showing, and certainly equal to that of last year, when the company paid a dividend of 9 per cent.

THE STARS AND STRIPES IN LONDON.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Tomorrow, November 9, the new Lord Mayor of London gives a great feast in the Guildhall banqueting chamber. As soon as he heard of Mr. McKinley's success he affixed over the entrance the Union Jack, flanked on each side with the Stars and Stripes—a very pretty sight to attract the gaze of all London. What are we coming to? Presently it will be London to New York and back in a week. Please stop short of proposing an amalgamation or gigantic trust, to run the two countries. Yours truly,

J. T. WICKS.

London, November 8, 1900.

TILLINGHAST TIRE PRICES.

IN view of the attention which has been given lately to the question of the prices of single tube tires for the coming season, it may be stated that there has always been more or less discussion among Tillinghast licensees as to the price at which tires would best suit the market, and on the schedule of license fees. During September and October of this year there was a discussion of marked interest among the licensees as to the prices at which certain classes of tires might be sold. The result of the discussion has been to leave the matter just where it was at its inception. The schedule of prices established last January, and the royalty fixed to be paid by licensees, remain as they have been since the issuance of the new 1900 licenses, namely: for guaranteed tires $4.25 a pair, and for unguaranteed tires $2.75 a pair. The recent discussion was earnest as well as long, but at its termination the licensor company and each of its licensees have determined to abide strictly by the terms and conditions of the license and by their legal rights and obligations thereunder. Therefore, since the licensor and each licensee are agreed upon the strict maintenance of all the conditions of the license, it follows that any sale of tires at less than schedule prices will subject the licensee to all the penalties of breach of license, and the purchaser of such tires to a suit for infringement. By the way, the Tillinghast Tire patent decision may yet be taken to the appellate court.

REVIEW OF THE CRUDE RUBBER MARKET.

BUYING of Pará sorts by consumers on both sides of the Atlantic has continued quiet, being confined to small lots, with the result that prices have become easier. In fact, cables from Pará indicate relatively higher prices than are now quoted at New York or Liverpool. The net result of the month's market changes has been a decline in Islands fine new of 4 cents per pound, as compared with our last published report, with slighter concessions on other Pará grades, Upriver fine old alone remaining unchanged. In Centrals, Guayaquil strip and Nicaragua scrap show a decline for the month, while other sorts remain without change. There have been few changes in Africans and none is to be reported in Assam and Borneo.

Receipts at Pará continue below the figures for the corresponding season of last year. This is not definite evidence, however, that the production on the upper Amazon has been short. It is quite possible that shipments to market have been delayed by the weak tendency of the market, and that, later in the season, receipts may be so large as to make up for the present shortage, regardless of what prices may be at the time.

Quotations in New York on November 30 were:

PARÁ.		AFRICAN.	
Islands, fine, new	88 @89	Tongues	55 @56
Islands, fine, old	92 @93	Sierra Leone	68 @70
Upriver, fine, new	92 @93	Benguella	62 @63
Upriver, fine, old	97 @98	Congo ball	57 @58
Islands, coarse, new	53 @54	Cameroon ball	56 @57
Islands, coarse, old	60 @61	Flake and lumps	44 @45
Upriver, coarse, new	69 @70	Accra flake	18 @19
Upriver, coarse, old	71 @72	Accra buttons	59 @60
Caucho (Peruvian) sheet	54 @55	Accra strips	62 @63
Caucho (Peruvian) strip none imported now.		Lagos buttons	59 @60
Caucho (Peruvian) ball	65 @66	Lagos strips	62 @63
CENTRALS.		Liberian flake	@
Esmeralda, sausage	63 @64	Madagascar, pinky	@
Guayaquil, strip	53 @54	Madagascar, black	@
Nicaragua, scrap	62 @63	GUTTA-PERCHA.	
Mangabeira, sheet	46 @48	Fine grade	1.75
EAST INDIAN.		Medium	1.45
Assam	82 @83	Hard white	1.20
Borneo	37 @48	Lower sorts	65
		Balata	

Late Pará cables quote:

	Per Kilo		Per Kilo.
Islands, fine	6$600	Upriver, fine	7$700
Islands, coarse	2$600	Upriver, coarse	4$700

Exchange 10*d*.

NEW YORK RUBBER PRICES FOR OCTOBER (NEW RUBBER.)

	1900.	1899.	1898.
Upriver, fine	93 @1.00	1.03@1.05	89 @ 96
Upriver, coarse	69 @ 74	81 @ 84	79 @ 85
Islands, fine	92 @1.00	97 @ 99	85 @ 94
Islands, coarse	52 @ 57	61½@ 64	58 @ 65
Cametá, coarse	56 @ 58	63 @ 65	59 @ 67

In regard to the financial situation, Albert B. Beers, broker in India-rubber, No. 58 William street, New York, advises us as follows:

"During November money market conditions have been but little changed from what they were in October, though on the whole the situation has been somewhat easier, and banks have taken paper more freely, rates ruling at 5@5½ per cent. for the best rubber paper, and 5½@6 per cent. for somewhat lower grade."

STATISTICS OF PARA RUBBER (METRIC TONS).

NEW YORK.

	Fine and Medium.	Coarse.	Total 1900.	Total 1899.	Total 1898.
Stocks, September 30	370	80 =	450	337	128
Arrivals, October	828	367 =	1195	1126	492
Aggregating	1198	447 =	1645	1463	620
Deliveries, October	677	389 =	1066	1233	469
Stocks, October 31	521	58 =	579	230	151

	PARÁ.			ENGLAND.		
	1900.	1899.	1898.	1900.	1899.	1898.
Stocks, September 30	255	695	435	1200	670	745
Arrivals, October	2235	2256	1900	180	450	960
Aggregating	2490	2951	2335	1380	1120	1705
Deliveries, October	2075	2414	2015	450	625	850
Stocks, Oct. 31	415	537	320	930	495	855

	1900.	1899.	1898.
World's supply, Oct. 31 (excluding Caucho)	3313	2238	2462
Pará receipts, July 1 to October 31	5419	5895	6160
Afloat from Pará to United States, Oct. 31	429	376	
Afloat from Pará to Europe, October 31	649	663	

MANGABEIRA RUBBER.

EXPORTS from São Paulo, Brazil, during September amounted as follows, all going to Hamburg:

	kilograms
By Schlodtmann & Arnold	3111
By Schmidt & Frost	1496
By Theodor Wille & Co	2202
Total	6809

Messrs. Schlodtmann & Arnold wrote, October 9: "The arrivals from the interior of São Paulo and Minas Geraes have been very small, but in the course of this month we await regular lots, and calculate that the exportation during October will amount to double the above figures."

LONDON.

JACKSON & TILL, under date of November 1, report stocks:

		1900.	1899.	1898.
LONDON	Pará.....(English tons)	—	—	1
	Borneo	209	166	149
	Assam and Rangoon	32	33	42
	Other sorts	690	406	473
	Total	931	605	665
LIVERPOOL	Pará	927	490	864
	Other sorts	1182	765	597
	Total, United Kingdom	3040	1860	2126
	Total, October 1	2846	1831	1841
	Total, September 1	3170	1988	1546
	Total, August 1	3645	1878	1469

PRICES PAID DURING OCTOBER.

	1900.	1899.	1898.
Pará fine	3/11½@4/3	4/2 @4/5	3/9 @3/11½
Negroheads, Islands	2/3 @2/3½	2/7	2/5½ @2/6½
Negroheads, scrappy	2/11 @3/1	3/5 @3/5½	3/3 @3/6
Bolivian	No sales.	4/4½ @4/5	3/11½

LIVERPOOL.

WILLIAM WRIGHT & CO. report [November 1]: "*Fine Pará*—The market has been dull and declining all month, and prices show a drop of of *3d.* per pound, and a very small business done. Buyers are of the opinion, and perhaps rightly so, that prices must go still lower. The sales on spot total 65 tons, and, owing to lack of demand, spot values are nominal—Upriver Fine *4s.* and Islands *3s. 11½d.* For delivery, Upriver Fine sold at *4s. 2½d.*@*3s. 11d¾.*; Islands at *4s 1d.*@*3s. 11½d.*, closing with sellers of Upriver, November-December and December-January at *3s. 11½d.* and Islands at *3s. 11d. African* neglected during the month except lumps, in which a fair business has been done. Buyers would go on, but supplies are scarce."

J. J. Fischer & Co., Limited, report Liverpool stocks:

	July 31.	Aug. 31.	Sept. 30.	Oct. 31.
Pará: Fine	1030 tons	864 tons	639 tons	673 tons
Medium	138 "	85 "	66 "	73 "
Negroheads	339 "	286 "	192 "	189 "
African	823 "	710 "	725 "	789 "
Peruvian	381 "	144 "	132 "	102 "
Mangabeira	205 pkgs	195 pkgs	445 pkgs	458 pkgs
Pernambuco	86 "	41 "	41 "	51 "
Ceará	1557 "	1393 "	1166 "	1085 "
Maniçoba	396 "	575 "	524 "	901 "
Assaree	166 "	166 "	241 "	243 "
Mollendo	411 "	156 "	356 "	222 "

BRITISH IMPORTS OF INDIA-RUBBER.

[JANUARY 1 TO OCTOBER 31—OFFICIALLY REPORTED.]

		1898.	1899.	1900.
Imports	pounds.	44,618,336	41,969,200	49,291,648
Exports		26,365,696	28,359,968	28,022,176
Net imports		18,252,640	13,609,232	21,169,472

GUTTA-PERCHA.

Imports	pounds.	5,677,728	7,197,792	12,633,488
Exports		1,018,080	615,552	1,219,120
Net imports		4,659,648	6,582,240	11,414,368

THE PARA MARKET.

KANTHACK & CO. report [November 9]: "The market had been conspicuous for want of animation bestowed upon Upriver kinds, which now are arriving more regularly and in increasing amounts. The indisposition of buyers to operate, together with the continued scarcity of money and the advancing tendency of exchange, made holders eager to sell without delay, the result having been a considerable drop in currency prices. During the last few days, however, more animation has manifested itself, at improved prices, but the volume of transactions is still small, although it comprises nearly the whole of the arrivals. The present quotations are—

"Pará fine,	83½	cents against	89	cents	Same time
Pará coarse,	34¼	" "	52	"	last year,
Upriver fine,	92	" "	100	"	per pound, f. o. b.,
Upriver coarse,	53¼	" "	73	"	not including
Caucho slabs,	41	" "	58	"	shrinkage, freight,
Caucho balls,	53	" "	71	"	and insurance."

THERE is reason to believe that the receipts of rubber at Manáos and Pará up to date have shown a shortage, compared with last season, owing to a scarcity of money with which to "move the crop," as the western farmers in the United States sometimes say when the season for shipping wheat to the seaboard comes around. The *Brazilian Review* (Rio de Janeiro) says that "one of the causes of the tightness of money in this region [Amazonas] is distinctly traceable to the extravagant use of imported goods. The custom house at Manáos is so full that the goods are overflowing into the streets and quays, like at Santos in the good times of the 'crisis of progress.' In Amazonas everything is imported—clothes, food, and almost everything else—and consequently costs a mint of money. What few things are raised in the country are worth their weight in gold, a tough old rooster fetching 20 milreis and eggs 12 milreis per dozen. Naturally, with currency prices for rubber falling, if Amazonenses will insist on spending three quarters of their rubber to pay for imports, the balance will be insufficient to go round. What is wanted at Amazonas is a little economy."

The *Brazilian Review* for October 2 has advices from the upper Purus reporting a very heavy crop of rubber. This stream is the heaviest producer of rubber among all the Amazonian tributaries. Last year it yielded about 40 per cent. of all the "Upriver Pará."

SMALLER BOLIVIAN RUBBER EXPORTS.

THE INDIA RUBBER WORLD has been favored by the Bolivian statistical office at La Paz with the following data regarding the exports of rubber for 1899 through the custom house at Villa Bella, the outlet for which is the Madeira river and thence through the Amazon:

Fine and Medium	kilograms	747,832.89	
Coarse		89,404 50	
Caucho		3,543.	
Caucho sernamby		3 311.50	844,091.89
Total exports by Villa Bella, 1898			865,246

The exports through the custom house at Puerto Pérez (via Mollendo) have been given already in THE INDIA RUBBER WORLD up to June 30, 1899. The official figures received now bring the returns up to the end of the year:

First half of 1898	kilograms	145,492	
Second half of 1898		111,050	256,542
First half of 1899		113,504	
Second half of 1899		105,640	219,144

It will be seen that the exports for both ports show a falling off as compared with 1898. The returns are yet to arrive for the Acre district, which in 1898 supplied more than half the Bolivian rubber exported.

The Brazilian Review (Rio de Janeiro) of October 16 reported: "A meeting of *aviadores*, or rubber dealers, was lately summoned at Pará by Col. Rodrigo de Carvalho, representative of the revolutionary government of the disputed territory. Dr. Carvalho again accentuated the firm intention of the Acreanos to resist Bolivian pretensions and of the revolutionary government to religiously collect the duty of 1 $200 per kilo on all rubber from the district. It appears that some of the 'patriots'

have been taking advantage of the conflict to get their rubber through without paying any duty at all either to the Bolivian or Revolutionary authorities. Henceforward, such unprincipled persons will be looked after more closely and be forced to pay what is his to both the Bolivian and Revolutionary Cæsars. Rubber business is, under such circumstances, scarcely likely to be flourishing this year in that neighborhood."

THE ANTWERP MARKET.

TO THE EDITOR OF THE INDIA RUBBER WORLD: In the sales by private tender of this date 146 tons of 152 tons offered —mostly Congo sorts—were sold at an average of 5 centimes, or ½ to 1 per cent. above valuations. The most interesting lots were 40 tons Equateur, which sold at 7.55 francs (valued 7.50); 40 tons Lopori sold at 8.10 francs (3 tons) and 8.05 (37 tons) valued 7.90; 11 tons Upper Congo at 8 francs for 8 tons and 8.05 for 3 tons (valued 8); 10 tons Aruwimi at 7.05 francs (valued 7). On the whole the competition was brisk and England and the United States took some of the purchases. The new arrivals from the Congo per steamer *Albertville*, amount to 136 tons—which will be exposed for sale in about a month. Including these arrivals existing stocks amount to 850,618 kilograms.

C. SCHMID & CO.

Antwerp, November 6, 1900.

THE latest circular from G. van den Kerckhove (Antwerp) mentions that the reduced receipts of rubber at Paráhave been due to an interruption in the transportation of rubber from the upper Amazon, though this is attributed to temporary causes. Renewed attention is called to the recent production of inferior rubber, not only in Africa, but even in South America. "Often lots of secondary quality, but for which high prices have been paid in the initial markets, lie in stock for weeks, or even months, in Europe, until the discouraged importer gets rid of the rubber at a great sacrifice. He may gain the impression that the market is bad, without acknowledging the fact that the trouble lies in the inferior quality of his rubber." The prediction is made that importers of really good rubber may view the future of the market with confidence, because it will be possible, for a long time to come, to realize very remunerative prices on prime grades.

As for the Antwerp market, although, as a rule, other than Congo grades find buyers rather less readily, the general situation there remains very firm. The October auctions showed a slight advance in the leading sorts offered, as Upper Congo, Lopori, Ikelemba, Thimbles (Kwango), and Lake Leopold, while most other sorts at least maintain their standing in the previous month's sales. The Equateur lots offered, however, an account of their bad condition, showed a decline in price. A lot of about 16 tons of Indo-China rubber, well prepared, and very similar to Rangoon rubber, readily found buyers at satisfactory prices.

By the steamer *Anversville* the Loanjé company have just received their first shipment, consisting of excellent black Kassaï —almost "prime" and reminding one of the attractive black Kassaï rubbers of five years ago. Regular shipments to Antwerp are now expected by this company, as well as by the companies Est du Kwango and Comptoir Velde (formerly L. & W. Van de Velde). In fact, since these companies have become possessed of a steamer of their own on the upper Congo, their shipments may be expected to become both more direct and more regular. The *Albertville*, due at Antwerp, November 5, carried little white rubber.

The Belgian companies operating in the English Gold Coast Colony have begun making shipments of rubber to the Antwerp market. Consignments have been made lately by the Gold Coast India Rubber Co. and the Cie. Anglo-Belge de la Côte d'Or. The Cie. Coloniale de la Côte d'Or are also expected to make regular shipments. All of their rubbers that can be classed as "Cape Coast" or "Accra" appear to be of good quality throughout, and doubtless will form an important staple in the Antwerp market.

The Comptoir Commercial Anversois (formerly J. Wégimortt) have received a shipment of washed Borneo rubber, of superior quality.

ANTWERP RUBBER STATISTICS FOR OCTOBER.

DETAILS.	1900.	1899.	1898.	1897.	1896.
Stocks, Sept. 30.....	1,004,762	307,482	226,874	257,349	55.158
Arrivals, October....	470,028	304,946	166,467	165,384	184.759
Aggregating. ...	1,474,790	612,428	393,341	422,733	239,917
Sales in October.....	565,743	463,690	158,690	148,323	118,881
Stocks, October 31...	909,047	148,738	234,651	274,410	121,036
Arrivals since Jan. 1..	5,054,496	2,933,333	1,581,946	1,481,169	824.521
Sales since January 1.	4,437,440	3,047,935	1,441,758	1,346,387	792,339

ARRIVALS AT ANTWERP.

OCT. 21.—By the steamer *Anversville*, from the Congo:

Société A B I R.... .....kilograms	51,000	
Comptoir Commercial Congolais.....	37,000	
Bunge & Co.....	105,000	
M. S. Cols (Végétaux Kassaï).	22,000	
M. S. Cols (Lubéfu)	6,000	
Société Coloniale Anversoise (Haut Congo)	6,324	
Société Coloniale Anversoise (Kameroon).....	380	
Cie. Commercial des Colonies (Cie Francaise du Congo)	4.500	
Ch. Dethier (Belgika).....	9.300	
Ch. Dethier (Société Anonyme la Loangé)..	2,000	243.504

NOV. 6.—By the steamer *Albertville*, from the Congo:

Bunge & Co. (for the Domaine Privé).....kilograms	54,000	
Bunge & Co. (Société Anversoise)....	16,000	
Bunge & Co. (Société Equatoriale Congolaise).....	9,000	
Société A B I R—Lopori.	5,600	
Société Coloniale Anversoise—Upper Congo.....	26,000	
M. S. Cols (Société Végétaux du Kassaï)—Kassaï...	10,000	
Ch. Dethier (Société Belgika).....	8,700	
Comptoir Congolais Velde.....	3,000	
Compagnie Commerciale des Colonies—Kassaï.....	3,000	
Traffic Congolais....	750	
William Mallinckrodt & Co.....	500	136,550

THE BORDEAUX MARKET.

TO THE EDITOR OF THE INDIA RUBBER WORLD: During the month of October, in consequence of the yellow fever epidemic raging on the Senegal and in Casamance, only one steamer from that quarter has come into port at Bordeaux, which moreover carried only a very small quantity of rubber—about 15 tons. There have also arrived from Madagascar some barrels—about 6 tons—and also 2000 kilograms of Java rubber. Of the 80 tons Soudan and 50 tons Gambia, which arrived last month, nothing remains, with regard to African goods.

All these lots have been sold at prices without change. These are the prices obtained:

	Per Kilogram.
Soudan twists, prime red.....francs	7.35@7.40
Do prime white	6 80@7.50
Do second and third.....	4 85@5.75
Soudan niggers, prime black.....	7.15@7.60
Do prime white.....	6.80@6.95
Gambia, A P.....	7.60
Do A; A M; B.....	4.60@6.95

Madagascar (Majunga) in large balls, well cleaned, sold at 7 francs; the same, very moist, 6.50 francs; Madagascar (Tamatave), 8 francs; Java (lampong), 7.50@8 francs. Stocks at the end of October include 5500 kilograms Java and 1500 kilograms Madagascar.

P. CHAUMEL.

THE CRUDE RUBBER MOVEMENT AT NEW YORK.

IMPORTS FROM PARA AND MANAOS.

[*All the Figures Denote Pounds.*]

October 29.—By the steamer *Polycarp* from Manáos and Pará:

IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total.
New York Commercial Co.	222,400	60,900	92,600	3,600=	379,500
Crude Rubber Co.	132,200	25,200	37,100	.. ..=	194,500
Albert T. Morse & Co.	60,200	5,700	65,100	39,200=	170,200
Reimers & Co.	116,900	19,300	33,900	. ...=	170,100
Otto G. Mayer & Co.	32,000	6,700	17,000	.....=	55,700
Boston Rubber Shoe Co.	.....	....	.....	5,100=	5,100
Hagemeyer & Brunn.	2,800	.....	400	....=	3,200
Total.	566,500	117,800	246,100	47,900=	978,300

November 7.—By the steamer *Dunstan*, from Manáos and Pará:

New York Commercial Co.	232,800	31,500	105,400	3,000=	372,700
Reimers & Co.	79,900	2,100	61,400	.....=	143,400
Crude Rubber Co.	101,600	12,700	25,100	....=	139,400
Albert T. Morse & Co.	14,600	6,100	63,300	1,200=	85,200
Otto G. Mayer & Co.	30,700	3,400	20,600	.....=	54,700
Boston Rubber Shoe Co.	26,000	1,500	9,100	.....=	36,600
Lawrence Johnson & Co.	.....	.....	11,400	.....=	11,400
Total	485,600	57,300	296,300	4,200=	843,400

November 7.—By the steamer *Dona Amelia*, from Manáos:

Albert T. Morse & Co.	28,600	.....	6,600	500=	35,700

November 16.—By the steamer *Cearense*, from Manáos and Pará:

IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total
New York Commercial Co.	113,300	13,500	49,000	2,000=	175,800
Reimers & Co.	47,600	6,500	34,900	.....=	89,000
Boston Rubber Shoe Co.	26,800	8,300	11,000	3,000=	49,100
Crude Rubber Co.	61,500	4,100	16,600	2,500=	84,700
Albert T. Morse & Co.	21,600	3,800	46,400	.....=	71,800
Edmund Reeks & Co.	17,700	2,100	4,900	.....=	24,700
Otto G. Mayer & Co.	15,900	300	5,400	1,000=	22,600
Total	302,400	38,600	168,200	8,500=	517,700

November 22.—By the steamer *Gregory*, from Pará:

New York Commercial Co.	99,000	15,900	42,600	.....=	157,500
Reimers & Co.	31,800	4,300	36,300	.....=	72,400
A. T. Morse & Co.	16,200	1,100	49,200	.... =	66,500
Crude Rubber Co.	37,200	2,200	9,600	1,700=	50,700
Boston Rubber Shoe Co.	29,600	3,600	6,300	.....=	39,500
Lawrence Johnson & Co.	12,000	1,100	13,300	. ...=	26,400
Edmund Reeks & Co.	11,000	2,000	1,200	500=	14,700
Otto G. Mayer & Co.	. ...	.....	12,800	.....=	12,800
Hagemeyer & Brunn.	2,100	....	700	....=	2,800
Total.	238,900	30,200	172,000	2,200=	443,300

[NOTE.—The *Amazonense* left Pará for New York on November 23, with a cargo of rubber, the amount of which is not stated.]

PARA RUBBER VIA EUROPE.

	POUNDS.	
OCT. 24.—By the *Oceanic*=Liverpool:		
Reimers & Co. (Coarse)	3,300	
OCT. 29.—By the *Alex Bixio*=Havre:		
George A. Alden & Co. (Caucho)	6,800	
Crude Rubber Co. (Caucho)	6,200	13,000
OCT. 31.—By the *Cevic*=Liverpool:		
Livesey & Co. (Coarse)		2,500
NOV. 1.—By the *Teutonic*=Liverpool:		
George A. Alden & Co. (Coarse)	15,000	
Crude Rubber Co. (Coarse)	14,000	
Reimers & Co. (Coarse)	1,000	30,000
NOV. 5.—By the *Etruria*=Liverpool:		
Reimers & Co. (Caucho)		45,000
NOV. 10.—By the *Lucania*=Liverpool:		
Reimers & Co. (Coarse)	11,500	
Albert T. Morse & Co. (Coarse)	7,000	
George A. Alden & Co. (Coarse)	6,000	
Crude Rubber Co. (Coarse)	5,500	39,500
NOV. 15.—By the *Majestic*=Liverpool:		
Reimers & Co. (Coarse)		15,000
NOV. 19.—By the *Umbria*=Liverpool:		
George A. Alden & Co. (Coarse)	5,000	
Crude Rubber Co (Coarse)	5,000	
Reimers & Co. (Coarse)	3,000	13,000
NOV. 19.—By the *New York*=Southampton:		
William Wright & Co. (Caucho)		11,000
NOV. 22.—By the *Oceanic*=Liverpool:		
George A. Alden & Co. (Fine)	8,000	
George A. Alden & Co. (Caucho)	4,500	
Crude Rubber Co. (Caucho)	4,500	17,000

OTHER IMPORTS AT NEW YORK.

CENTRALS.

	POUNDS.	
OCT. 24.—By *El Norte*=New Orleans:		
A. T. Morse & Co.	9,500	
Harburger & Stack	1,000	10,500
OCT. 26.—By the *Pioneer*=Colon:		
Hirzel, Feltman & Co.	19,500	
Flint, Eddy & Co.	10,500	
A. Santos & Co.	10,000	
G. Amsinck & Co.	8,500	
Frame, Alston & Co.	4,000	
Dumarest & Co.	3,000	
Roldan & Van Sickel	1,000	56,500
OCT. 27.—By the *Graf Waldersee*=Hamburg:		
Reimers & Co.	13,000	
O. G. Mayer & Co.	11,000	24,000

CENTRALS—Continued.

OCT. 29.—By the *Altai*=Cartagena:		
Kunhardt & Co.	3,500	
Roldan & Van Sickel	4,500	
Flint, Eddy & Co	2,500	
S. Samper & Co	1,000	11,500
OCT. 30.—By the *Alliance*=Colon:		
G. Amsinck & Co.	17,000	
Flint, Eddy & Co.	6,000	
Roldan & Van Sickel	1,700	
D. N. Carrington	1,000	
Steele & Dorgeloh	100	25,800
OCT. 31.—By *El Monte*=New Orleans:		
A. T. Morse & Co.	3,500	
A. N. Rotholz	1,000	4,500
NOV. 1.—By the *Nasmyth*=Bahia:		
J. H. Rossbach & Bros		30,000
NOV. 3.—By the *City of Washington*=Mexico:		
H. Marquardt & Co.	3,000	
J. E. Ward & Co.	2,000	
P. Harmony Nephews & Co.	1,500	
J. W. Wuppermann	500	
L. N. Chemedlin & Co.	300	
L. Monjo, Jr., & Co	200	7,500
NOV. 5.—By the *Alene*=Greytown:		
A. P. Strout	5,000	
G. Amsinck & Co.	4,200	
J. A. Pauli & Co	1,500	
Andreas & Co	1,000	
Ellinger Bros.	800	
S. Samper & Co.	700	
Kunhardt & Co.	300	
Guiterman, Rosenfeld & Co.	200	13,700
NOV. 8.—By the *Hildur*=Maracaibo:		
G. Amsinck & Co.	800	
Suzarte & Whitney,	200	1,000
NOV. 10.—By the *Pennsylvania*=Hamburg:		
Livesey & Co		8,500
NOV. 10.—By *El Rio*=New Orleans:		
A. T. Morse & Co.		7,000
NOV. 12.—By the *Orizaba*=Mexico:		
H. Marquardt & Co	3,500	
Fred Probst & Co.	2,000	
Graham, Hinckley & Co.	2,500	
E Steiger & Co	200	8,200
NOV. 12.—By the *Louisiana*=New Orleans:		
W. R Grace & Co		3,000
NOV. 13.—By the *Athos*=Cartagena:		
Isaac Brandon & Bros	2,500	
J. Ferro	1,000	
Kunhardt & Co.	1,500	
W. H. Crossman & Bros.	1,000	
Kuhne Libby & Co	200	6,000

CENTRALS—Continued.

NOV. 13.—By the *Kong Frode*=Belize:		
Eggers & Heinlein	10,000	
A. S. Lascellas & Co.	500	
Chauna & Co.	500	
A. Lehman & Co.	500	
G. Amsinck & Co.	300	
Harburger & Stack	100	11,900
NOV. 15.—By the *Parran*=Colon:		
A. Santos & Co	7,000	
G. Amsinck & Co.	8,500	
Frame, Alston & Co.	3,500	
Flint, Eddy & Co.	2,700	
Hirzel, Feltman & Co.	2,000	
Kunhardt & Co.	2,000	
Lanman & Kemp	1,500	
Isaac Brandon & Bros.	1,500	
Eggers & Heinlein	1,000	
C Wessels & Co	500	
Dumarest & Co.	500	
W. Loaiza & Co.	500	
Pomares & Cushman	300	31,500
NOV 19.—By the *Hogarth*=Bahia:		
J. H Rossbach & Bros.		15,000
NOV. 19.—By the *Proteus*=New Orleans:		
W. R Grace & Co	4,000	
A. T. Morse & Co.	2,500	
A. N. Rotholz.	1,000	7800
NOV. 19.—By the *Alleghany*=Greytown:		
A. P. Strout	5,000	
G. Amsinck & Co.	4,000	
Kunhardt & Co	3 000	
A. N. Rotholz.	2,000	
A. D. Straus & Co.	500	
Jimenez & Escobar	300	
F. Nieto & Co.	200	
Guiterman, Rosenfeld & Co.	100	15,100
NOV. 20.—By the *Advance*=Colon:		
Hirzel, Feltman & Co	10.000	
G. Amsinck & Co.	8,200	
Roldan & Van Sickel,	4,300	
Dumarest & Co.	3,300	
Flint, Eddy & Co	3,000	
Frame, Alston & Co.	1,700	
Gillespie Bros. & Co.	1,600	
D. N. Carrington	1,000	
Lawrence Johnson & Co.	1,000	
J. B. Sageman	700	
Piza Nephews & Co	100	
Isaac Brandon & Bros.	200	34,400

AFRICANS.

	POUNDS.	
OCT. 24.—By the *Mesaba*=London:		
George A. Alden & Co.	22,000	
Crude Rubber Co	20,000	42,000
OCT. 25.—By the *Noordland*=Antwerp:		
Albert T. Morse & Co.		12,000

AFRICANS—Continued.

OCT. 27.—By the *Philadelphian*=Liverpool:
A. T. Morse & Co. 41,500

OCT. 27.—By the *Campania*=Liverpool:
Livesey & Co. 16,000

OCT. 27.—By the *Graf Waldersee*=Hamburg:
George A. Alden & Co. 17,500
Livesey & Co. 8,500 26,000

OCT. 30.—By the *Friesland*=Antwerp:
George A. Alden & Co. 261,000
Crude Rubber Co. 261,000
Albert T. Morse & Co. 13,000 535,000

OCT. 31.—By the *Cevic*=Liverpool:
Livesey & Co. 13,000
George A. Alden & Co. 5,000
Crude Rubber Co. 5,000 23,000

NOV. 1.—By the *Teutonic*=Liverpool:
George A. Alden & Co. 16,000
Crude Rubber Co. 14,500
Reimers & Co. 12,000 42,500

NOV. 2.—By the *Peninsular*=Lisbon:
George A. Alden & Co. 67,000
Crude Rubber Co. 68,000 135,000

NOV. 3.—By the *Bulgaria*=Hamburg:
George A. Alden & Co. 11,000
Livesey & Co. 4,000 15,000

NOV. 5.—By the *Etruria*=Liverpool:
Reimers & Co. 9,000
George A. Alden & Co. 8,000
Crude Rubber Co. 7,500
Livesey & Co. 6,000 30,500

NOV. 5.—By the *Caledonian*=Liverpool:
Reimers & Co. 22,500
Otto G. Mayer & Co. 11,500 34,000

NOV. 7.—By the *Georgic*=Liverpool:
Reimers & Co. (Almeidina) 2,000

NOV. 8.—By the *Southwark*=Antwerp:
Reimers & Co. 22,000
Albert T. Morse & Co. 3,500 25,500

NOV. 10.—By the *Pennsylvania*=Hamburg:
Livesey & Co. 6,500

NOV. 9.—By the *Germanic*=Liverpool:
Otto G. Mayer & Co. 6,000
Reimers & Co. 2,000
Livesey & Co. 5,000 13,000

NOV. 10.—By the *Lucania*=Liverpool:
George A. Alden & Co. 14,000
Crude Rubber Co. 14,000
Livesey & Co. 10,000
Reimers & Co. 3,500 41,500

NOV. 15.—By the *Majestic*=Liverpool:
Reimers & Co. 6,500
George A. Alden & Co. 5,000
Crude Rubber Co. 7,000 18,500

NOV. 19.—By the *Umbria*=Liverpool.
George A. Alden & Co. 15,000
Crude Rubber Co. 15,000

AFRICANS—Continued.

Reimers & Co. 15,000
Livesey & Co. 22,500 37,500

NOV. 19.—By the *Pretoria*=Hamburg:
Reimers & Co. 11,500
Livesey & Co. 11,500 23,000

NOV. 22.—By the *Oceanic*=Liverpool:
George A. Alden & Co. 12,000
Reimers & Co. 15,000
Crude Rubber Co. 12,000 39,000

NOV. 22.—By the *Kensington*=Antwerp:
A. T. Morse & Co. 65,000
Reimers & Co. 3,000 68,000

EAST INDIAN.

POUNDS.

OCT. 26.—By the *Clan Urquhard*=London:
George A. Alden & Co. 26,500

OCT. 27.—By the *Graf Waldersee*=Hamburg:
Livesey & Co. 11,500

OCT. 29.—By the *Maria*=Calcutta:
George A. Alden & Co. 32,000

NOV. 5.—By the *Bulgaria*=Hamburg:
Livesey & Co. 8,500

NOV. 13.—By the *Brookside*=Calcutta:
George A. Alden & Co. 9,500

NOV. 21.—By the *Marquette*=London:
D. P. Cruikshank 11,000

NOV. 22.—By the *Glenesk*=Singapore:
J. W. Greene & Co. 15,000
George A. Alden & Co. (Pontianak).. 165,000
R. Brauss & Co. (Pontianak)..... 200,000
J. W. Greene & Co (Pontianak).... 50,000
W. R. Russell & Co. (Pontianak)..... 50,000 580,000

NOV. 5.—By the *Manitou*=London:
George A. Alden & Co. (Pontianak). 100,000

NOV. 17.—By the *Alfrida*=Singapore:
George A. Alden & Co. (Pontianak). 300,000
W. R. Russell & Co. (Pontianak).... 60,000 360,000

GUTTA-PERCHA AND BALATA.

POUNDS.

NOV. 5.—By the *Bulgaria*=Hamburg:
Robert Soltau & Co. 25,000

NOV. 7.—By the *Georgic*=Liverpool:
Robert Crooks & Co. 2,500

NOV. 10.—By the *Pennsylvania*=Hamburg:
Robert Soltau & Co. 2,500

NOV. 19.—By the *New York*=Southampton:
Robert Soltau & Co. 8,500

NOV. 19.—By the *Pretoria*=Hamburg:
Robert Soltau & Co. 10,000

BALATA.

NOV. 14.—By the *Prins Willem IV.*=Surinam:
George A. Alden & Co. 400

BALATA—Continued.

NOV. 17.—By the *Maraval*=Trinidad:
George A. Alden & Co. 8,500
Middleton & Co. 500 9,000

CUSTOM HOUSE FIGURES.

PORT OF NEW YORK—OCTOBER.

Imports:	POUNDS.	VALUE.
India-rubber	5,666,781	$2,756,296
Gutta-percha	9,099	6,918
Gutta-jelatong (Pontianak)	857,517	21,960
Total	6,533,397	$2,785,174
Exports:		
Gutta-percha [Balata ?]	116,023	$42,531
Reclaimed rubber	241,743	25,630
Rubber Scrap Imported	1,469,925	800,570

BOSTON ARRIVALS.

POUNDS.

OCT. 1.—By the *Sachem*=Liverpool:
Otto G. Mayer & Co.—African. 19,803

OCT. 15.—By the *Ultonia*=Liverpool:
Livesey & Co.—African. 2,279

OCT. 18.—By the *Saxonia*=Liverpool:
Reimers & Co.—African. 16,855

OCT. 25.—By the *Kansas*=Liverpool:
Reimers & Co.—Fine Pará 14,850
Livesey & Co.—African 1,509 16,359

OCT. 30.—By the *Devonian*=Liverpool:
Reimers & Co.—African 11,220

	POUNDS.	VALUE.
Total, January	105,946	$69,329
Total, February	109,763	65,290
Total, March	81,489	55,950
Total, April	141,398	90,607
Total, May	53,285	36,126
Total, June	39,376	22,016
Total, July	115,865	56,897
Total, August	127,972	71,851
Total, September	223,215	143,609
Total, October	66,516	42,275

GUTTA-PERCHA.

OCT. 1.—By the *Sachem*=Liverpool:
George A. Alden & Co. 1,103

OCT. 9.—By the *Anglian*=London:
George A. Alden & Co. 4,197

Total 5,300

PONTIANAK.

OCT. 16.—By the *Bostonian*=Liverpool:
Reimers & Co. 65,000

OCT. 25.—By the *Cambrian*=Liverpool:
Reimers & Co. 65,000

OCT. 29.—By the *Columbian*=Liverpool:
Reimers & Co. 63,000

Total 193,000

OCTOBER EXPORTS OF INDIA-RUBBER FROM PARA.

IN KILOGRAMS. 100 KILOGRAMS=220 POUNDS.

EXPORTERS.	UNITED STATES.					EUROPE.					TOTAL.
	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	
Adelbert H. Alden	272,406	55,368	131,306	3,640	462,720	56,410	4,470	28,680	—	89,560	552,280
Cmok, Prüsse & Co.	32,300	7,650	50,460	600	91,010	228,310	36,210	21,240	570	286,330	377,340
Frank da Costa & Co.	34,642	6,224	96,288	10,680	147,834	75,448	7,532	55,476	150	138,606	286,440
The Sears Pará Rubber Co.	138,060	18,690	49,030	389	206,169	—	—	—	—	—	206,169
Rudolf Zietz	20,316	4,046	13,369	—	37,731	55,157	4,075	47,475	7,337	114,044	151,775
Denis Crouan	19,380	680	13,440	—	33,500	38,420	6,800	410	—	45,630	79,130
Singlehurst, Brocklehurst & Co.	—	—	—	—	—	10,837	458	1,404	—	12,699	2,699
Kanthack & Co.	—	—	—	—	—	1,804	545	345	—	2,694	2,694
Pires, Teixeira & Co.	1,323	—	1,226	—	2,549	—	—	—	—	—	2,549
Direct from Iquitos	—	—	—	—	—	26,466	3,866	13,738	39,549	83,619	83,619
Direct from Manáos	199,460	29,910	42,006	22,338	293,714	235,467	36,925	44,477	29,580	346,449	640,163
Total for October	717,887	122,568	397,125	37,647	1,275,227	728,319	100,881	213,245	77,186	1,119,631	2,394,858
Total for September	295,610	66,261	265,567	45,504	672,942	273,905	39,729	88,540	6,664	408,838	1,081,780
Total for August	376,963	45,639	193,344	7,697	623,643	486,763	86,959	146,159	71,472	791,353	1,414,996
Total for July	148,853	28,698	102,431	28,796	308,778	151,995	24,461	119,417	49,211	345,084	653,862
Total, January–June	2,633,971	467,106	1,603,010	471,294	5,175,381	3,050,250	636,986	1,177,656	490,236	5,355,128	10,530,509
Total for 1900	4,173,284	730,272	2,561,477	590,938	8,055,971	4,691,232	889,016	1,745,017	694,769	8,020,034	16,075,005

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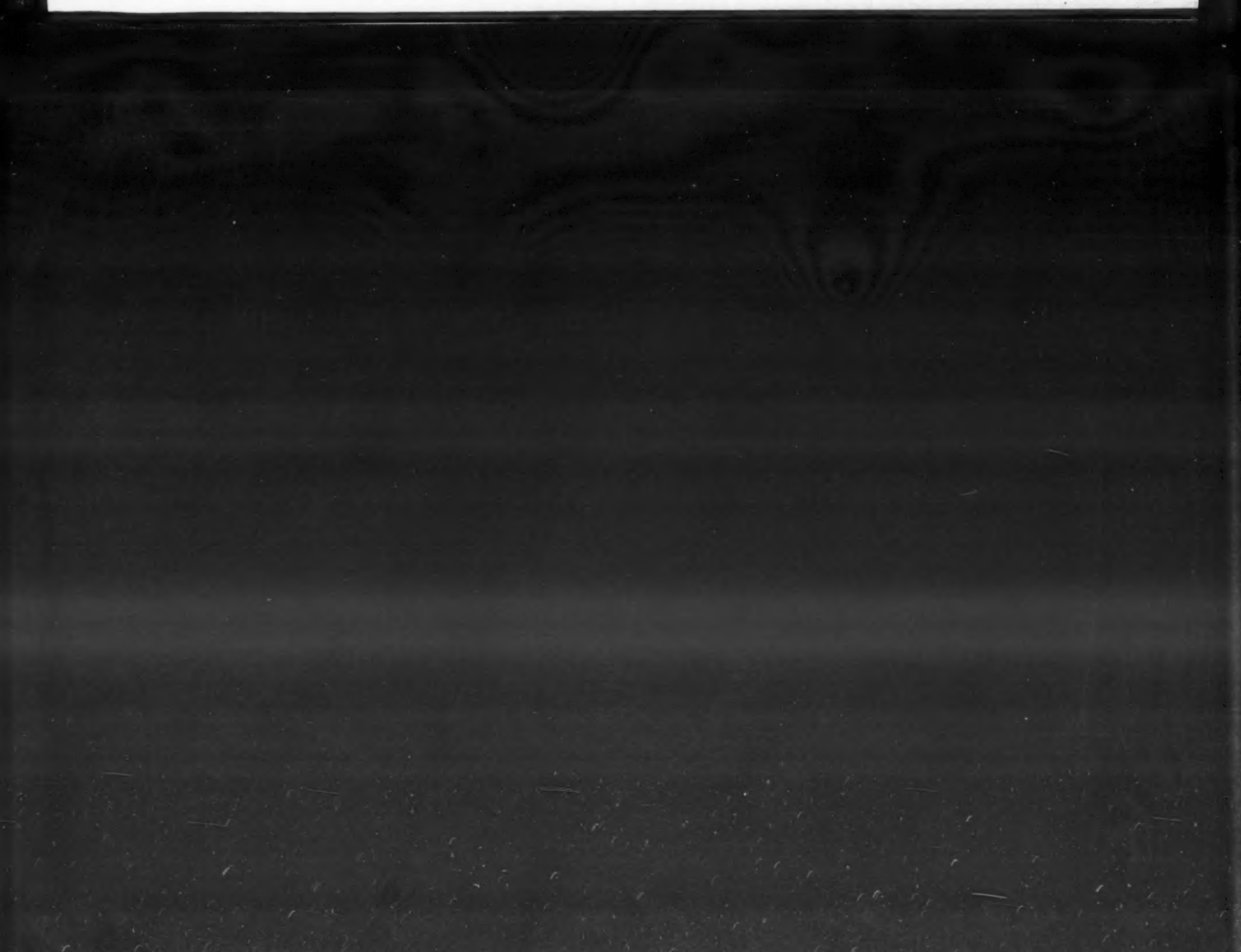

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Kelly-Springfield Solid Carriage Tires
"Maltese Cross" Carbolized Rubber Fire and Suction Hose.
"Eureka," "Paragon" and other High Grades of Cotton Fire Hose.
"Goodrich" and **"Hartford"** Single Tube Bicycle Tires.

WE make a *SPECIALTY OF MANUFACTURING FOR THE CANADIAN MARKET*, Rubber Goods *FOR THE HOLDERS OF CANADIAN PATENTS*, and solicit correspondence with Rubber Manufacturers who desire to have their specialties made in Canada.

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RUBBER INSULATING COMPOUNDS
BELTING - MATTING - CLOTHING
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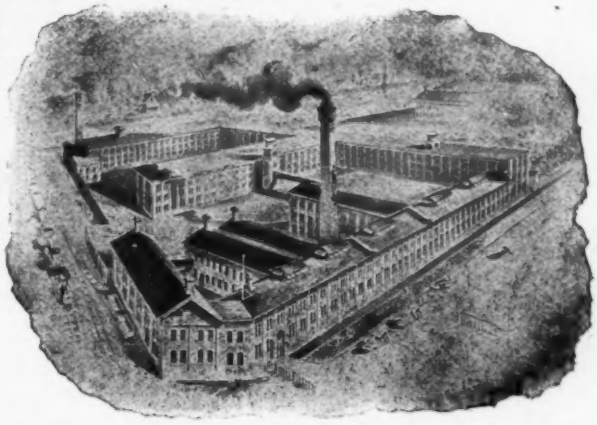
HOSE - CARRIAGE CLOTHS -

"Maltese Cross" & "Lion" Rubber Boots & Shoes.



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THE CANADIAN RUBBER COMPANY OF MONTREAL.

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Jenkins Bros.' Valves

are manufactured of the best steam metal, and are fully guaranteed. Why experiment with cheap valves? If you want the *BEST* ask your dealer for valves manufactured by Jenkins Brothers. Remember all genuine are stamped with Trade Mark like cut.

JENKINS BROTHERS, New York, Philadelphia, Chicago, Boston.

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Roofs and iron work properly painted have not required repainting in ten to twenty years. Time only can prove the value of a paint, and Dixon's Silica-Graphite Paint is the ONLY graphite paint with a satisfactory time record.

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THE GUTTA PERCHA & RUBBER MFG. CO.

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30 & 32 Fremont St., SAN FRANCISCO.
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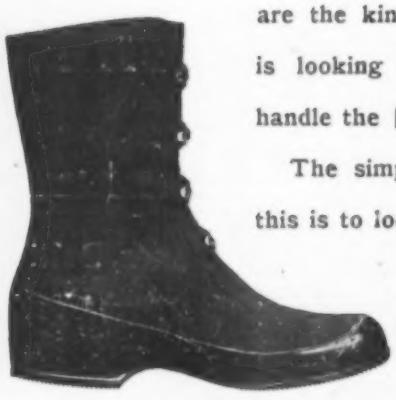
A. SPADONE, Pres. H. E. SPADONE, Vice-Pres. MATTHEW HAWE, Treas.

Mention The India Rubber World when you write

GOOD RUBBERS



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The simplest way to do this is to look for the name of **HOOD** on the bottom of each boot, shoe or arctic.

HOOD RUBBER CO.,

BOSTON.

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TYRIAN

DRUGGISTS' RUBBER GOODS.

Fountain and Bulb Syringes,
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Our Goods are Warranted.

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